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Index to Volume XXIII

LIST OF ORIGINAL COMMUNICATIONS ARRANGED BY NAMES OF AUTHORS.

ANTHONY, HENRY G.—Folliclis of the Skin and Conjunctiva: Report of a Case	337
ARNOLD W. F.—Correspondence.....	443
ASHMEAD, ALBERT S.—The Mulberry-colored Spots on the Skin of the Lower Spine of Japanese and other Dark Races: A Sign of Negro Descent....	203
ASHMEAD, ALBERT S.—Correspondence.....	492
ASHMEAD, ALBERT S.—Antirheumatic Treatment of Psoriasis of the Finger Nails	480
BASSOE, PETER.—(See Ormsby).....	294
BOWEN, JOHN T.—Dermatitis Herpetiformis in Children.....	381
CORLETT, WILLIAM T.—Varicella Accompanying Herpes Zoster.....	289
CURL, H. C.—Report of a Case of Keratosis Follicularis.....	404
CURL, H. C.—The Treatment of Elephantiasis—A Note.....	402
FORDYCE, JOHN A.—Paget's Disease (?) of the Gluteal Region; The Effect of the Roentgen Ray upon the Disease.....	193
FORDYCE, JOHN A.—Report of a Case of Brain Syphilis.....	483
FORDYCE, JOHN A.—Notes on Visit to Copenhagen.....	486
FORDYCE JOHN A.—Some Notes Made During a Recent Visit to Christiania and Bergen.....	525
HEIDINGSFELD, M. L.—Porokeratosis (Mibelli).....	29
HEIDINGSFELD, M. L.—Trichorrhæxis Nodosa.....	246
HERXHEIMER.—Further Observations on Acrodermatitis Chronica Atrophicans.	241
HIRSCHLER, ROSE.—(See Schamberg).....	425
JACKSON, GEORGE T.—A Note on the Treatment of Ichthyosis.....	522
JACKSON, GEORGE T.—Some Cases of Diseased Nails.....	153
JOHNSTON, JAMES C.—Melanoma (Part First).....	1
JOHNSTON, JAMES C.—Melanoma (Part Second).....	49
JOHNSTON, JAMES C.—Editorial: The Melanoma Question.....	36
KEYES E. L., JR.—Report on the Work Accomplished by the French Society of Social and Moral Prophylaxis.....	529
KLOTZ, H. G.—A Plea for the use of Soluble Preparations of Mercury in the Treatment of Syphilis by the Mouth.....	469
LEVEISEUR, F. J.—Contribution to the Clinical Aspect and Treatment of Pompholyx (Cheiropompholyx, Dysidrosis).....	432
MACKEE, GEORGE M.—The Treatment of Chancroidal, Herpetic and Varicose Ulcerations by the High-frequency Spark. (Hyperstatic, Piffard.)....	535
McGOWAN, GRANVILLE.—The Use of Adrenalin Chloride in Hæmorrhages and Angioneurotic Diseases of the Skin.....	72
McPHEDRAN, ALEXANDER.—Multiple Sebaceous Cysts: A Case.....	117
MARKLEY, A. J.—Mycosis Fungoides and the X-ray.....	440
MEWBOURN, A. D.—Editorial: The Treatment of Varicose Veins by Walking..	77
MEWBOURN, A. D.—Editorial: Sterility Caused by the Use of the X-ray.....	119

MEWBORN, A. D.—Editorial: Ringworm of the Scalp Cured by the X-ray....	159
MEWBORN, A. D.—Editorial: Primary Lesion of the Tonsil.....	214
MEWBORN, A. D.—Editorial: Experimental Syphilis and the Spirillum of Syphilis	310
MEWBORN, A. D.—Editorial: Pityriasis and Desquamative Diseases.....	358
MEWBORN, A. D.—Editorial: The Critical Spirit vs. the Spirit of Authority in Medicine	408
MEWBORN, A. D.—Editorial: Cutaneous Atrophy and Epithelioma Following the Use of the X-ray.....	442
MEWBORN, A. D.—Editorial: Depilation by the X-ray.....	489
MONTGOMERY, D. W.—The Mould of Dermatitis Coccidioides.....	115
MONTGOMERY, D. W.—The Acquisition of Syphilis Professionally by Medical Men	145
MONTGOMERY, D. W.—An Instance of Staphylococcic Infection of the Tonsil Simulating a Chancre.....	199
MONTGOMERY, D. W.—The Location of Extragenital Chancres.....	342
MORROW, HOWARD.—Ethyl Chloride in the Treatment of Zoster.....	157
MORROW, P. A.—Editorial: The American Society of Sanitary and Moral Prophylaxis	260
GRIMSBY, O. S. and PETER BASOE.—A Case of Acute Malignant Pemphigus (P. Vegetans?), with Autopsy Report.....	294
PEAILLER, G. E.—A Case of Chronic Pyogenic Onychitis Cured by the X-ray	356
SCHAMBERG, JAY F.—Successful Treatment of an Extensive Case of Lupus Vulgaris with the X-rays.....	405
SCHAMBERG, JAY F.—Epithelioma of the Forehead having its Origin in a Papillary Nævus.....	425
SCHMIDT, L. E.—Clinical and Microscopical Reports of Dermatological Cases.	300
SHELMIRE, J. B.—Creeping Eruption: Report of a Case.....	257
SINCLAIR, D. A.—Gangrene of the Skin Following the Use of Stovaine, a New Local Anæsthetic.....	307
STELWAGON, H. W.—Observations Concerning Some Palmar Eruptions.....	26
TAYLOR, ROBERT W.—Editorial: Evolution of the Initial Lesion or Lesions in Successive Crops (<i>Chancres Syphilitiques Successifs</i>).....	513
WALLHAUSER, H. J. F.—A Case of Lichen Planus Combining two Rare Forms of the Disease.....	477
WALLIS, J. F.—Small Multiple Kerion.....	428
WENDE, GROVER W.—Alopecia Areata as Associated with Nail Changes....	517
WHITE, C. J.—Fordyce's Disease.....	97
WOLBACH, S. B.—The Life Cycle of the Organism of Dermatitis Coccidioides.	18

INDEX.

v

ALPHABETICAL LIST OF AUTHORS WHOSE WORKS ARE PUBLISHED OR ANALYZED IN THIS VOLUME.

- Abrahams, 187.
 Abt, 369.
 Adamson, 370.
 Adrian, 364.
 Albarran, 510.
 Alexander, 136.
 Allen, C. W., 86, 89, 121, 122, 123, 124, 315, 161, 266, 312.
 Anthony, H. G., 183, 337, 361.
 Antonino, 188.
 Apolant, 499.
 Arnold, 443.
 Ashford, 38.
 Ashmead, 203, 480, 492.
 Audry, 134, 137, 138, 136, 414.
 Austin, 361.
 Azuma, 39.
- Balzer, 140, 141.
 Barthélemy, 140, 454.
 Bassoe, 294.
 Baumer, 332.
 Beaurain, 419.
 Bennett, 45.
 Besnier, 142.
 Blaschko, 235.
 Bondet, 414.
 Bosselini, 130, 189.
 Bowen, 79, 80, 128, 130, 221, 381.
 Breton, 363.
 Brocq, 142.
 Bronson, 87, 121, 166.
 Brown, S. H., 241, 549.
 Brown, W. B., 226, 227, 229, 318, 320.
 Bulkley, 87, 495, 497.
 Bunch, 367.
 Burns, 126, 177, 179, 221.
 Buschke, 332, 450.
- Campbell, 184.
 Caro, 368.
 Carpenter, 134.
 Chatin, 48.
 Chirivino, 238.
 Church, 46.
 Clarke, 333.
 Cocks, 224, 225.
 Coley, 499.
 Cook, 363.
 Corlett, 289.
 Crary, 39.
 Curl, H. C., 402, 404.
- Dade, 171, 218, 544.
 Dalous, 333, 417, 456.
 Danlos, 42, 43.
 Danville, 140, 141.
 Davis, A. E., 242.
 Davis, C. N., 549.
 Delaunay, 422.
 Delbanco, 450.
 Demassary, 456.
 Detre, 4*0.
 Dodian, 42.
 Dohi, 38.
 Douglass, 242, 230.
 Druelle, 286.
 DuCastel, 468.
 Duhot, 186.
 Dumont, 419.
- Eberth, 144.
 Ehlers, 329.
 Ehrlich, 499.
 Ehrman, S., 512.
 Elliot, 543.
 Emery, 287.
 Escherich, 134, 135.
 Evans, 558, 189, 558.
- Fabri, 236.
 Farmer, 502.
 Faure, 47.
 Fellander, 431.
 Ferrari, 376.
 Fick, 421.
 Fick, Joh., 512.
 Finger, 139, 465.
 Fischkin, 182.
 Fordyce, 121, 122, 123, 193, 217, 263, 266, 265, 545, 565.
 Fournier, 6.0.
 Fox, G. H., 121, 175, 187, 264, 265, 266, 315, 493, 494, 495, 496, 498.
 Frankel, 450.
- Galiana, 44.
 Gaucher, 39, 40, 42, 141, 282, 284.
 Gerber, 93.
 Glatti, 283.
 Gordon, 47.
 Gregory, 327.
 Groz, 95.
 Gruven, 238.
 Gutzeit, 43.

- Haaland, 500.
 Haeselbarth, 94.
 Hahn, 415.
 Halgand, 413.
 Hall, 558.
 Halle, 415.
 Hallopeau, 417.
 Hansemann, 505.
 Harding, 84, 131.
 Harttung, 136.
 Hartzell, 323.
 Heidingsfeld, 29, 248.
 Heimann, 447.
 Heller, 374.
 Henneberg, 288.
 Herxheimer, 241.
 Hirsch, 556.
 Hirshler, 425.
 Hirshfeld, B., 334.
 Hodara, 500.
 Hoffman, 498.
 Howe, 222, 178, 179, 273, 281.
 Hughes, 241.
 Huie, 231.
 Hutchinson, J., 140.
 Hyde, 182, 183, 184, 185.

 Jackson, 92, 153, 522.
 Jacquet, 142.
 Johnston, J. C., 1, 36, 49.
 Josephs, M., 335.
 Jullien, 138.

 Karwowski, 361.
 Keefer, 457.
 Keyes, E. L., Jr., 529.
 Keyser, 502.
 King, W. W., 38.
 Kingsbury, 229, 318.
 Klaveness, 374.
 Klotz, H. G., 453.
 Knowles, 324.
 Koebner, 236.
 Kopytowski, 231.
 Kraus, 233, 238.
 Kreibich, 330.
 Kreisl, 453.
 Kurita, 38.

 Lafay, 286.
 Lambkin, 48.
 Langstein, 560.
 Lapowski, 226.

 Larkin, 362.
 Lassar, O., 137.
 Lasserre, 417.
 Leale, 554.
 Lenglet, 366.
 Leven, 188.
 Levisieur, 189, 432.
 Levy-Bing, 454.
 Lewandowski, 445.
 Leyden, 503.
 Lie, 329.
 Lieberthal, 181, 186.
 Lilienthal, 235.
 Little, 550.
 Littlewood, 362.
 Loeb, 501.
 Lowy, 237.
 Lustgarten, 171, 173, 174, 187, 216, 218.
 Lydston, 511.

 MacAdam, 228.
 MacKee, 535.
 Mantoux, 366.
 Markley, 440.
 Marshall, 48.
 Martins, 321.
 Mauriac, 468.
 Maxwell, 362.
 McCall-Anderson, 508.
 McFarland, 189.
 McGowan, 72.
 McPhedran, 117.
 Mengen, 374.
 Metchnikoff, 419.
 Mettler, 47.
 Mewborn, 77, 119, 159, 167, 172, 175, 176,
 217, 262' 310, 316, 358, 408, 422, 493,
 546.
 Moore, 502.
 Moores, 336.
 Montgomery, F. H., 183, 184, 185.
 Montgomery, D. W., 115, 145, 199, 342.
 Morrow, H., 157.
 Morrow, P. A., 260.
 Moser, 187.
 Mracek, 285.

 Neumann, 283.
 Nichols, 373.

 Oppenheim, 411.
 Ormsby, 294.
 Orth, 504.

- Pansier, 190.
 Pardee, 186.
 Pasini, 552.
 Pautrier, 376.
 Peobrazhenski, 456.
 Pernet, 192.
 Perrin, 366.
 Pfahler, 325, 356, 548.
 Pick, W., 448, 449.
 Piffard, 120, 167, 265.
 Pinkus, 351.
 Piolett, 363.
 Plachte, 372.
 Pond, 123, 132.
 Pospelow, 335.
 Post, 85, 179, 223, 274.
 Pringle, 191.
 Pritchard, 46.
 Pusey, 366.

 Ravogli, 365.
 Renault, 41.
 Rentsch, 457.
 Ribbert, 503.
 Richardson, 362.
 Robinson, A. R., 168, 216, 262, 268.
 Robinson, D. M. O., 270.
 Rona, 412.
 Rost, 94.
 Rostaine, 39, 40, 42.
 Roux, 419.
 Royer, 326.
 Rudolph, 93, 133.

 Sabourand, 377, 418, 423.
 Salmon, 141.
 Schalek, 184.
 Schamberg, 405, 425, 326.
 Schmidt, A., 235.
 Schmidt, L. E., 300.
 Schultze, 331.
 Scott, 362.
 Sederholm, 364.
 Sellei, 420.
 Sequira, 188.
 Shaw, 371.
 Shelmire, 257.
 Shennan, 457.

 Sherwell, 163, 165, 171, 216, 315.
 Shoemaker, 548.
 Silex, 237.
 Sinclair, 190, 307.
 Singer, 288.
 Smith, C. H., 37, 506.
 Smith, C. M., 82, 83, 85, 220.
 Somers, 363.
 Stelwagon, 26, 241, 324, 325.
 Stout, 325.
 Strebel, 415.
 Swaboda, 559.

 Tennenheim, 189.
 Teyssaire, 417.
 Thibierge, 420.
 Thomas, 364.
 Touchard, 141.
 Towle, 81, 84, 86, 279.
 Tremolieres, 48.
 Trimble, 225, 227.

 Umbert, 365.
 Unna, 551.

 Van Harlingen, 549.
 Varney, 365.
 Vincent, 412.
 Volhard, 453.
 Volk, 233.

 Wallhauser, 477.
 Wallis, 324, 325, 428.
 Ward, 447.
 Weber, 187.
 Wechselman, 452.
 Wende, G. W., 517.
 White, C. J., 97, 124, 126, 131, 273, 275,
 276, 278.
 Whitehouse, 170, 312, 320, 319.
 Whitfield, 361, 554.
 Williams, C. M., 224, 322, 323, 455.
 Winfield, 452.
 Wolbach, 18.
 Wright, J. H., 330, 409.

 Zeisler, 185.

ALPHABETICAL AND CLASSIFIED INDEX FOR THE YEAR 1905.

- Acanthosis nigricans following cancer of the breast, Menahem Hodara, 500.
 Acne vulgaris, M. Joseph, 335.
 Actinomycosis, the biology of the micro-organism of, James H. Wright, 409.
 Acne telangiectodes (Kaposi): acnitis (Barthelemy), Walther Pick, 449.
 Adenoma of sebaceous glands of the abdominal wall, W. C. Clarke, 333.
 Adenoma sebaceum disseminatum, Fel-lander, 451.
 Anatomy and clinical appearances of so-called adenoma sebaceum, Franz Poor, 451.
 Adenoma sebaceum, A. Buschke, 332.
 Alopecia areata, a form of ringworm, Jonathan Hutchinson, 367.
 Angioneurosis, a unique, Nichols, 373.
 Antipyrin eruption, two cases of, Karl Löwy, 237.
 Argyrosis, two cases of, Sillex, 237.
 Atrophoderma erythematosa maculosa or lichen planus atrophicans, Wechselmann, 452.
 Atrophy of the subcutaneous connective tissue, inflammatory, A. Kraus, 233.
 Atrophy of subcutaneous fat tissue, inflammatory, Alfred Kraus, 238.
 Atrophy of the subcutaneous fat, inflammatory, K. Loewy, 553.
- BOOK REVIEWS.
- Syphilis and Gonorrhea, C. F. Marshall, 48.
 The Treatment of Syphilis, F. J. Lambkin, 48.
 La Pelade, A. Chatin and F. Tremolieres, 48.
 La Pratique Dermatologique. Tome IV, Besnier, Brocq and Jacquet, 142.
 Die Männlichen Geschlechtsorgane, C. F. Eberth, 144.
 A Pictorial Atlas of Skin Diseases and Syphilitic Affections, E. Besnier, Fournier, Tenneson, Hallopeau, Du-Castel, Henri Feulard and L. Jacquet. English edition by J. J. Pringle, 191.
 The Differential Diagnosis of Syphilitic and Non-Syphilitic Affections of the Skin, Including Tropical Diseases, George Pernet, 192.
- A Practical Treatise on Genito-Urinary and Venereal Diseases and Syphilis, Robert W. Taylor, third edition, 240.
 Essentials of Diseases of the Skin, including the Syphilodermata, arranged in the form of questions and answers, Henry W. Stelwagon, sixth edition, 241.
 A Compend of the Practice of Medicine, Daniel E. Hughes, seventh edition, skin diseases, by Samuel H. Brown, 241.
 Studies in the Psychology of Sex; Sexual Selection in Man, Havelock Ellis, 241.
 Eye, Ear, Nose and Throat Nursing, A. Edward Davis, and Beaman Douglass, 242.
 Exploration des Fonctions Rénales—(*Etude Medico-Chirurgicale*), J. Albarran, 510.
 Maladies du Cuir Chevelu II. Les Maladies Desquamatives Pityriasis et Alopecies Pelliculaires, Sabouraud, 377.
 Manuel Elementaire de Dermatologie Topographique, Regionale, Sabouraud, 423.
 The Surgical Diseases of the Genito-Urinary Tract, Venereal and Sexual Diseases. A Textbook for students and practitioners, by G. Frank Lydston, 511.
 Einführung in das Mikroskopische Studium der Normalen und Kranken Haut. Ein Leitfaden für Ärzte und Studierende, S. Ehrman and Joh. Fick, 512.
 Die Blennerrhoe der Sexualorgane und ihre Complicationen, Ernest Finger, 465.
- BOSTON DERMATOLOGICAL SOCIETY. Cases Presented.
- Copaiba eruption, J. S. Howe, 222.
 Dermatitis herpetiformis in children, case I, J. T. Bowen, 79.
 Dermatitis herpetiformis in children, case II, J. T. Bowen, 80.
 Dermatitis medicamentosa, A. Post, 85.
 Dermatitis medicamentosa, Harding, 81.
 Dermatitis medicamentosa, Post, 274.
 Dermatitis venenata? Harding, 131.
 Desquamation, a case of recurrent periodic palmar and plantar, J. S. Howe, 222.

- Diagnosis, C. J. White, 273.
 Diagnosis, C. Morton Smith, 83.
 Diagnosis, J. T. Bowen, 221.
 Diagnosis, Towle, 84.
 Diagnosis, C. J. White and Burns, 126.
 Diagnosis, Towle, 81.
 Diagnosis, Towle, 86.
 Epithelioma of the lip of five weeks duration, C. J. White, 278.
 Erythema Induratum (?) C. J. White, 124.
 Erythema Induratum, Burns, 177.
 Fibroma Molluscum, Smith, 85.
 Iodism (?) in a baby, J. S. Howe, 273.
 Impetigo Bockhart, C. J. White, 276.
 Keloid multiple, C. Morton Smith, 83.
 Lupus erythematous (?), H. P. Towle, 279.
 Lupus vulgaris cured by the X-ray, F. S. Burns, 179.
 Lupus vulgaris, F. S. Burns, 221.
 Lymphangioma Circumscriptum, Burns, 177.
 Pemphigus (?) cured by the X-rays, Abner Post, 223.
 Psoriasis or seborrhoic eczema, H. P. Towle, 177.
 Ringworm, F. S. Burns, 219.
 Ringworm, ectothrix variety, C. J. White, 275.
 Syphilis in a negro closely simulating a tuberculide, Abner Post, 179.
 Syphilis (?) C. J. White, 131.
 Tuberculosis cutis and elephantiasis, J. T. Bowen, 128.
 Trophic ulcer or malingering? J. T. Bowen, 130.
 Tuberculosis, C. Morton Smith 220.
 Tuberculosis cutis in mother and son, J. S. Howe, 178.
 Tuberculosis verrucosa, J. S. Howe, 179.
 Unusual case, James S. Howe, 281.
 Beard, anomalies in development of the hairs of the, Vincenzo Chirivino, 238.
 Cicatrices, new treatment of, Henry R. Varney, 365.
 Cancer, the parasitic theory of, E. v Leyden, 503.
 Carcinoma, on the morphology of, and the parasitic theory of its etiology, Joh. Orth, 504.
 Carcinoma of the male breast, five cases of, Charles R. Keyser, 502.
 Carcinomata, spirochaete in ulcerating, Hoffman, 498.
 Congress of dermatology, report of the fifth international, Whitfield, 452.
 CHICAGO DERMATOLOGICAL SOCIETY. Cases Presented.
 Blastomycosis, Hyde and Montgomery, 185.
 Carcinoma en cuirasse, Ormsby, 181.
 Chancre of the nose, Anthony, 183.
 Diagnosis, Pardee, 186.
 Epithelioma (rodent ulcer type), Ormsby, 185.
 Granulosis rubra nasi, Ormsby, 183.
 Generalized tubercular gummata, Schalek, 184.
 Ichthosis simplex, Hyde and Montgomery, 184.
 Lepra tuberosa, Hyde and Montgomery, 185.
 Lepra, maculo-anæsthetic type, Hyde, Montgomery and Ormsby, 183.
 Lupus erythematosus, Hyde, 183.
 Molluscum contagiosum plus xanthoma, Lieberthal, 181.
 Pemphigus, Zeisler, 185.
 Persistent pigmentation resembling purpura, Hyde, 182.
 Purpura following mercurial inunction, Fischkin, 182.
 Sycosis vulgaris, Montgomery, 183.
 Gummatus syphilide, Campbell, 184.
 Urticaria Pigmentosa, Lieberthal, 186.
 Xanthoma multiplex, Hyde, 183.
 Dermatitis due to the gonococcus, metastatic, Audry, 414.
 Desinfector in the treatment of scabies, K. Azuma, 39.
 Eczema, infantile, Hall, 558.
 Eczema, ch. compl. of senile degeneration, Leale, 554.
 Elastin, staining of, and the use of counter-stains, L. H. Huie, 231.
 Elastin and elacin in the epith. of Gilchrist's disease, Unna, 551.
 Epidermolysis bullosa, Lilienthal, 235.
 Epidermolysis bullosa hereditaria, observations on the recent literature of, H. Kobner, 236.
 Epithelial fibers, method of demonstr., Pasini, 552.

- Erythema induratum*, Whitfield, 554.
Erythema induratum, Hirsch, 556.
Erythema infectiosum Heimann, 447.
Erythema nodosum, Abt, 369.
Erythema exudativum, gastro-intestinal crises of, simulating appendicitis, Pond, 132.
Erythromelia, a report of two cases of, Carl Gruen, 238.
Erythema contagiosa, Escherich, 135.
Erythema and *urticaria*, with a condition resembling angioneurotic œdema caused only by exposure to the sun's rays, Ward, 447.
Erythema infectiosum, H. L. Shaw, 371.
Erythemata, visceral manifestations in the, Rudolf, 133.
Erythemata, the sclerotic, and especially pemphigoid sclerotic erythema. (Les Erythemato-Scleroses.) Ch. Audry, 136.
Erythemata epidemic, Plachte, 372.
Erythemata of childhood, hæmorrh., Langstein, 560.
Erythème induré Bazin, further remarks upon the clinical history and the histology, Harttung and Alexander, 136.
Erythema nodosum, on a persistent form of, Pick, 448.
Favus in mother and infant, G. W. Crary, 39.
Folliculitis, the treatment of, A. Pos-pelow, 335.
Fibroma-molluscum, report of a case, H. G. Anthony, 361.
A case of simple *Fibroma* (fibro-neuroma) of the nerves of the lower extremities, with diffuse enlargement of the sciatics, complicating sarcoma, and metastases in the lungs, John H. Lar-kin, 362.
Fibroma molluscum, Sederholm, 364.
Fusiform bacillus and *spirillum*, path-ological manifestations due to the symbiosis of, Vincent, 412.
Granulosis rubra nasi (Jadassohn), a contribution to the histology of, Ed. Baunier, 332.
Hemiatrophia facialis progressive with unilateral pigmentation of the other side, Vollhard, 453.
Hæmochromatosis of the skin and abdom-inal organs in idiopathic atrophy of the skin with erythrodermia, Kreissl, 453.
Hair, on two cases of periodically re-curring falling of, Leo Caro, 368.
Herpes progenitalis, pathological anat-omy of, Kopytowski, 231.
Herpes zoster, age incidence, Evans, 558.
Herpetische eruption als vorstadium eines haut carcinom neben herpes zoster, Adolph Schmidt, 235.
Hydrocystoma, relation of, to *granulosis rubra nasi*, F. Pinkus, 331.
Hysterical dermatosis, Blaschko, 235.
Ichthyosis of syphilitic parentage, two cases of, Audry, 137.
Keloid, false or cicatricial, A. Ravogli, 365.
Keloid of the lobule of the ear, of infec-tious origin, recurring after surgical operation, and cured with bi-polar elec-trolysis, L. Perrin, 366.
Keloid developed after a secondary peri-follicular syphiloderm, Lenglet and Mantoux, 366.
Leprosy in the colony of the Cape of Good Hope, Gregory, 327.
On *leprosy* in the spinal cord and periph-eral nerves, Lie, 329.
Leprosy in Iceland in 1904 Ehlers, 329.
Lichen spinulosus, Lewandowsky, 445.
Lichen pilaris seu spinulosus, Adamson, 370.
Lichen pilaris (spinulosus), Pringle, 559.
Lupus pernio, Karl Kreibich, 330.
Lymphangitis nodular, of the conjunc-tiva complicating chancre of the lower eyelid, Delaunay, 422.
Madura-foot (mycetoma pedis), the pathological anatomy of the Indian, M. Oppenheim, 441.
Malignant growths, the etiology of, v. Hansemann, 505.
Malignant growths, on the behavior of leucocytes in, Farmer, Moore, and Walker, 502.
Mitoses in mast-cells, L. H. Huie, 231.
Molluscum fibrosum, a case of, George B. Somers, 363.
Molluscum fibrosum, of the rectum in a patient with typical skin lesions, a uni-que case of, A. B. Cooke, 363.
MISCELLANY.
The St. Louis Skin and Cancer Hospital, 380.

NEW YORK DERMATOLOGICAL SOCIETY.

Acne indurata to show the results of X-ray treatment, (previously shown), Allen, 315.
 Acne varioliformis, Bronson, 121.
 Applicator, a new, Jackson, 92.
 Atrophy, symmetrical cutaneous, Mewborn, 262.
 Carcinoma of skin, flat, Piffard, 120.
 Carcinoma relapsing, a flat, Piffard, 167.
 Dermatitis exfoliative, Fordyce, 265.
 Dermatitis papillaris capillitis, Fordyce, 265.
 Diagnosis, Dade, 171.
 Diagnosis, Fox, 175.
 Diagnosis, Allen, 122.
 Diagnosis, Dade, 218.
 Diagnosis, Sherwell, 216.
 Dubring's disease, Fox, 498.
 Erythematous eczema, two cases, Fox, 496.
 Eczema, chronic, with peculiar bluish discoloration of the face, Whitehouse, 170.
 Epidermolysis bull. hered., Holder, 542.
 Epithelioma of the nose and lower lid, relapse of an, following an apparent cure by X-ray treatment, Fordyce, 121.
 Epitheliomatosis, recurrent, Allen, 124.
 Folliculitis, a case of, Sherwell, 165.
 Folliculitis (folliculite épilante), a case of destructive, Dr. A. R. Robinson for Dr. Daisy M. Orleman Robinson, 268.
 Granuloma, a case of necrotic, Whitehouse, 312.
 Hodgkin's disease with peculiar eruption, E. B. Bronson, 87.
 Horn cysts, Robinson, 262.
 Impetigo contagiosa, generalized chronic, Allen, 161.
 Lepra tuberosa et anæsthetica, Lustgarten, 173.
 Leprosy, Bronson, 166.
 Leukoplakia (or lichen planus) of the tongue, beginning, Mewborn, 217.
 Lichen planus of the oral mucous membrane without skin lesions, Mewborn, 176.
 Lichen planus, an unusual case of, Bulkley, 87.
 Lichen planus atrophicus, Allen, 266.
 Lichen scrofulosorum, a case of, Fox, 314.
 Mycosis fungoides, Fox, 494.

Mycosis fungoides, Bulkley, 496.
 Lingua nigra, Lustgarten, 218.
 Lupus of the lobe of ear, Charles W. Allen, 89.
 Lupus erythematosus, Piffard, 120.
 Lupus vulgaris of ear, Piffard, 120.
 Lupus vulgaris, involving the neck, arm and thigh, Fordyce, 263.
 Lupus vulgaris of the nose, with perforation of the septum and involvement of the mucous membrane of the palate and lips, Mewborn, 172.
 Lupus vulgaris of nose, etc., showing X-ray treatment, Mewborn, 546.
 Lupus vulgaris, to show effects of treatment, Fox, 264.
 Lupus vulgaris, a case of, Fox, 264.
 Lupus erythematosus cured by the high frequency spark (Strebel), Lustgarten, 216.
 Melano-sarcoma, Fox, 121.
 Method for measuring skin lesions, a new, Jackson, 92.
 Mycosis fungoides in the lichenoid stage (premycosic), Mewborn, 316.
 Mycosis fungoides, Fox, 265.
 Mycosis fungoides, lichenoid stage (case previously shown), Mewborn, 493.
 Nævus, so-called adenoma sebaceum, Dade, 544.
 Pemphigus vulgaris, Fox, 493.
 Pigmentation, face, Fordyce, 266.
 Pityriasis rubra, Fox, 266 and 498.
 Pemphigus vulgaris, acute, Bulkley, 497.
 Prurigo Hebræ, Elliot, 543.
 Psoriasis with unusual distribution, Robinson, 168.
 Psoriasis of the hands, Fordyce, 122.
 Psoriasis with severe dermatitis from treatment, Bulkley, 497.
 Psoriasis of palms and tongue, Robinson, 216.
 Psoriasis of the hands, showing the effects of treatment, Fordyce, 217.
 Rodent ulcer cured by X-ray, Fordyce, 545.
 Sarcoma, multiple idiopathic pigment, Sherwell, 163.
 Sarcomatosis cutis, Sherwell, 171.
 Sarcoma pigmentosum idiopathicum (Kaposi), Lustgarten, 171.
 Sarcomatosis cutis (previously shown), Sherwell, 315.
 Scrofuloderma, Fox, 495.

- Syphilis, initial lesion of the eyelid, Mewborn, 167.
- Syphilitic onychia and paronychia, Allen, 121.
- Syphilitic inoculation from catheterization of the eustachian tube, Mewborn, 175.
- Syphilitic Onychia, a case of, Fordyce, 123.
- Trichophytosis (kerion) of the scalp, treated by the X-ray, Fox, 495.
- Trichophytosis capitis treated by the X-ray, Bulkley, 495.
- Trichophytosis capitis, L. D. Bulkley, 495.
- Ulerythema sycosiforme, Allen, 123.
- Senile warts (supposed porokeratosis), flat multiple, cured by the X-ray, Allen, 312.
- Xanthoma diabeticum tuberosum, Lustgarten, 174.
- Xanthoma tuberculatum multiplex juvenilis, Daisy M. O. Robinson, 270.
- NEW YORK SOCIETY OF DERMATOLOGY AND GENITO-URINARY SURGERY. Cases Presented.
- Acne varioliformis, W. B. Brown, 320.
- Atrophy of the skin and scleroderma, diffuse idiopathic, W. B. Brown, 227.
- Chancere, extragenital, C. M. Williams, 224.
- Cornu cutaneum, W. B. Trimble, 227.
- Dermatitis exfoliativa, Williams, 322.
- Dermatitis seborrhoeica, pityriasis rosea, and syphilis in the same subject, Cocks, 225.
- Diagnosis, Cocks, 224.
- Diagnosis, Williams, 323.
- Necrotic granuloma, Kingsbury, 229.
- Ichthyosis, H. G. MacAdam, 228.
- Leprosy, S. Martins, 321.
- Leukoplakia buccalis of an unusual type, W. B. Brown, 226.
- Morphœa, Kingsbury, 229.
- Morphœa, Kingsbury, 318.
- Psoriasis, with palmar lesions, Kingsbury, 229.
- Psoriasis, with palmar lesions, Kingsbury, 318.
- Scrofuloderm, pustular, H. H. Whitehouse, 320.
- Syphilis insontium, C. M. Williams, 224.
- Syphilis in a female which had a very striking resemblance to lupus erythematosus, B. Lapowski, 226.
- Syphilitic glossitis, W. B. Trimble, 225.
- Xanthoma multiplex, H. H. Whitehouse, 319.
- Xanthoma multiplex, two cases of, W. B. Brown, 229.
- Xanthoma multiplex, two cases of, W. B. Brown, 318.
- Nerve ending in the epidermis, a new, Selenew, 552.
- Neuro-fibroma of the skin and large large nerve-trunks, in which there developed a large spindle-celled sarcoma beneath the body of the scapula, H. W. Austin, 361.
- Neuro-fibromatosis, in which newly-formed nerve-fibres were found in the tumors, cutaneous, Arthur Whitfield, 361.
- Neuro-fibromatosis, multiple, H. Littlewood, W. H. Maxwell and S. C. Scott, 362.
- Neuro-fibromatosis, sarcoma, and death, W. G. Richardson, 362.
- Neuro-fibromatosis, with a large tumor, weighting 5 kilos and 600 grammes, and 602 smaller tumors, generalized, P. Piollett, 363.
- Neuro-fibroma cutis, A. Breton, 363.
- Neuro-fibromatosis (Von Recklinghausen's disease), with paralysis and muscular atrophy of arms and legs, H. M. Thomas, 364.
- Neuro-fibroma, Adam V. Karwowski, 364.
- Nosocomial gangrene, S. Róna, 412.
- Neuro-fibromatosis, a noteworthy case of, C. Adrian, 364.
- OBITUARIES.
- Charles Mauriac, 468.
- Rene DuCastel, 468.
- NOTICES.
- Society of Social and Moral Prophylaxis meeting, 467.
- The Roentgen Congress in Berlin, 191.
- Ikonographia Dermatologica.
- Nuclear degeneration in cutaneous inflammatory processes, R. Volk, 233.
- Page's disease of the nipple, Hugo Ribbert, 503.
- Pemphigus foliaceus, clinical and pathological study of, J. Fabry, 236.

- Psoriasis, joint affections in, Menzen, 374.
 Trauma-psoriasis, Klaveness, 374.
- THE PHILADELPHIA DERMATOLOGICAL SOCIETY. Cases Presented.
- Acne, necrotica, J. F. Wallis, 324.
 Ankylosis of jaw, X-ray treat., Pfahler, 548.
 Eczema rubrum followed by excessive pigmentation, Henry W. Stelwagon, 325.
 Epithelioma, Van Harlingen, 547.
 Epithelioma of hand, Stelwagon, 549.
 Epithelioma of mouth, Pfahler, 548.
 Exfoliation of skin, erythema scarlat., S. H. Brown, 549.
 Impetigo contagiosa, E. J. Stout, 325.
 Leprosy, B. F. Royer, 326.
 Lichen planus, an unusual case of, F. C. Knowles for C. N. Davis, 324.
 Lupus erythematosus, Jay F. Schamberg, 326.
 Morphœa, Pfahler, 325.
 Papulo-pustular tuberculide, Hartzell, 323.
 Sarcoma of mouth, Shoemaker, 548.
 Syphilis, Stelwagon, 549.
 Syphilis, C. N. Davis, 549.
 Tattoo mark effaced by eczema, S. H. Brown, 549.
 Urticaria papulosa, Wallis, 325.
- Radiotherapeutists, summary of the work of leading German, Hahn, 415.
 Ringworm treatment, Sabouraud's method of, J. L. Bunch, 367.
 Sarcoma idiopathicum multiplex hæmorrhagicum, Halle, 415.
 Sebaceous glands on the labia minora, the frequent occurrence of, Ernest Delbanco, 450.
 Sebaceous gland tumors, senile hyperplastic of the face, B. Hirschfeld, 334.
 Sebaceous glands, the function of, A. Buschke and Arthur Fräkel, 450.
 Spirochæta in ulcerating carcinomata, E. Hoffman, 498.
 Spirochæta pallida, T. Shennan, M. D., 458.
 Statistics of cases treated in the Dermatological Clinic of the Royal Japanese University of Tokio (1899-1902), K. Dohi, 38.
- Syphilis, bacteriology and histology of. Further experimental studies in syphilis, Metchnikoff and Roux 419.
 Histological studies of the papular syphilide, Johannes Fick, 421.
 General pathology of syphilis and parasymphilitic affections, Fritz Lesser, 375.
 Agglutination of blood in normal and syphilitic subjects—experimental studies, L. Detre and Sellei, 420.
 Inoculation of apes with syphilis, O. Lassar, 137.
 Tertiary syphilis, experiments as to the inoculability of, Paul Salmon, 141.
- Syphilis, primary and secondary manifestations.
 Chancre of the lip, Chas. M. Williams, 455.
 Chancre of genitals and lip, coincident, M. Queyrat, 41.
 Chancres, multiple syphilitic, M. Danlos, 42.
 Syphilitic chancre (suprapubic) becoming gangrenous, and followed by malignant syphilis. Balzer and Danville, 141.
 Marked development of secondary manifestations in the vicinity of primary lesion. Hallopeau and Teyssie, 417.
 Syphilitic lesion, primary, of the bulbar conjunctiva, Gutzeit, 43.
 Syphilide of the scalp, the crusted, Umberto, 43.
 Dermato-syphilide, clinical observations on, E. Finger, 139.
 Syphilitic alopecia, recurrent, M. Alex Renault, 41.
 Papular syphilide at site of former syphilitic ulcers, Balzer and Danville, 140.
 Syphilitic leucomelanoderma, Pautrier, 376.
 Syphilis and vitiligo, Geo. Thibierge, 420.
 The multiplicity of the syphilitic chancre, Beaurain et Dumont, 419.
 Syphilide, general pigmented, Danlos, 43.
- Syphilis of nervous system.
 Syphilis of the nervous system, H. D. Singer, 288.

- Syphilitic convulsions, a case of, preceded by marked somnolence of long duration, W. B. Bennett, 45.
- Para-syphilitic disorders, Archibald Church, 46.
- Syphilitic hemiparesis, Henneberg, 288.
- Intracranial syphilis (a diagnostic syndrome for) prognosis and treatment, W. B. Pritchard, 46.
- Optic neuritis, imminent blindness, complete cure by injections of calomel, Jullien, 138.
- Syphilis as a cause of the neuroses, L. H. Mettler, 47.
- Syphilis of the nervous system presenting clinically an amnesic symptom complex, with autopsy, Emma W. Moores, 336.
- Syphilitic lesions occurring during tabes, Dalous, 335.
- Syphilis and psychopathia, M. Galiana, 44.
- Hydrocephalus of syphilitic origin, Glatti, 283.
- Tabes dorsalis and its relation to syphilis, Lesser, 455.
- Tabes, juvenile, Alfred Gordon, 47.
- Tabes, Preobrazhensky, 456.
- Tabes, Rentsch, 457.
- Tabes, anti-syphilitic treatment in, M. Faure, 47.
- Tabes, De Massary, 456.
- Syphilitic manifestations in tabes, Dalous, 456.
- Tabes, Keefer, 457.
- Syphilis, inherited.
- Inherited syphilis, Gaucher, 284.
- Inherited syphilis and syphilitic heredity, Gaucher, 282.
- Syphilis of mothers and of the newborn, Mrazek, 285.
- Contribution to the study of inherited syphilis, Jordan, 287.
- Hereditary syphilis retarded and hereditary syphilis of the second generation, E. Fournier, 40.
- Venous dilation in an inherited syphilitic, Emery, Drucelle and Umberto, 287.
- Marginal glossitis and inherited syphilis, Gaucher, 285.
- Inheritance of syphilis, Neumann, 283.
- Syphilis, late manifestations.
- Unrecognized syphilis, Antonio Ferrari, 376.
- Syphilide, recurring palmar, Gaucher and Rostaine, 39.
- Tertiary syphilis, inoculability of, Barthélemy, 140.
- Syphilis and cancer of the mouth, Audry, 138.
- Gumma of the tongue, Gaucher and Rostaine, 42.
- Gumma of the urethra and corpora cavernosa, Gaucher and Rostaine, 40.
- Syphilis, opinions on, Jonathan Hutchinson, 140.
- Gumma of the forehead and of the nose, Gaucher and Touchard, 141.
- Syphilis, treatment of.
- Syphilis continuously treated by intramuscular injections of mercury salicylate, D. A. Sinclair, 190.
- Intra-venous injections in the treatment of syphilis, Barthélemy and Levy-Bing, 454.
- Inter-muscular injections of mercury in the treatment of syphilis, H. G. Klotz, 453.
- Treatment of inherited syphilis by the iodized oils, Lafay, 286.
- Trichophytosis of the beard, Felix Halgand, 413.
- Tuberculin, a plea for the more general use of, McCall-Anderson, 508.
- Tuberculous tumor of the glans penis, Grouven, 331.
- Tuberculosis verrucosa cutis in miners, on the occurrence of, Schulze, 331.
- Tumors in mice, M. Haaland, 500.
- Tumor growth, some conditions determining variations in the energy of, Leo Loeb, 501.
- Tumors, malignant in mice, P. Ehrlich and H. Apolant, 499.
- Uncinariasis in the south with special reference to mode of infection, Claude A. Smith, 37.
- Uncinariasis in Porto Rico, notes and observations on, B. K. Ashford and W. W. King, 38.
- Urticaria pigmentosa, Swaboda, 559.
- Urticaria pigmentosa in a nursing infant, Heller, 374.

- Urticaria pigmentosa, E. G. Little, 550.
 Urticaria, menstrual, Miller, 371.
 Urticarial wheals, capillary pulsation in, Carpenter, 134.
 Vaccines, on the employment of anti-staphylococcic and antitubercular, Wright and Douglas, 330.
 Uncinariasis, further remarks on the mode of infection in, C. A. Smith, 506.
 Xanthelasma, electrolytic treatment of, Pansier, 190.
 Xanthoma tuberosum multiplex, a case of, Leonhard Leven, 188.
 Xanthoma, or the "mushroom" growth, on a certain form of, W. Moser, 187.
 Xanthoma tuberosum, with tumor formation, a case of, Duhot, 186.
 Xanthoma elasticum, a contribution to the study of, G. V. Tennenheim, 189.
 Xanthoma, a clinical consideration of three cases of glycosuric, Bosellini, 189.
 Xanthoma, a case of, James McFarland, 189.
 Xanthoma diabeticum, a case of, Marullo Antonino, 188.
 Xanthoma, a report on generalized, especially that associated with tumor formation, Richter, 187.
 Xanthoma, F. Parkes Weber, 187.
 Xanthoma, Dr. Abrahams, 187.
 Xanthoma, S. Lustgarten, 187.
 Xanthoma, Dr. Fox, 187.
 Xanthoma, Wilmont Evans, 189.
 Xanthoma, J. H. Sequeira, 188.
 Xanthoma, Levisieur, 189.
 X-ray.
 Kathode rays as a substitute for Roentgen and radium rays, Strebel, 415.
 X-ray treatment of lipomata, Bondet, 414.
 Action of X-rays on the normal epidermis and on epitheliomatous tissues, Dalous and Lasserre, 417.
 X-ray treatment of cancer, including sarcoma, final results in the, William B. Coley, 499.
 Therapeutic use of X-ray, W. A. Pusey, 366.
 X-rays in tinea tonsurans, the results of, Sabouraud, 418.

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MELANOMA.

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GENERAL CONSIDERATIONS.

THIS term was first used by Virchow¹ to cover all sorts of pigmented neoplasmata. Recognition of the relationship of melanosis to mole tumor, however, dates half a century before his time. The honor of the discovery he accords to Wardrop, Norris (1820) and Paget (1864), but seems to have missed Laennec's observations which preceded them all. It may be well to retain this non-committal title until the controversy as to histogenesis of melanotic growths is finally settled or permanently, in case it should be demonstrated that the tissue origin is not always the same.

The view is generally accepted that pigment tumors arise from two sites only, the uveal tract and the skin including its invaginations to meet the hypoblast,* that their metastases are equally widespread and that in point of malignancy there is little to choose between them. The literature shows only one case in which the author† claimed that disseminated melanoma had its origin in the pigmented cortex of the adrenal. One of my own cases, No. vii, may be of the same genesis. There are pigment cells in the dura and ependyma, but

*Melanosarcoma primary in the rectum. Wiener, *Ziegler's Beiträge*, bd. XXV., p. 322, 1899, with bibliography to date.

†Reiman. *Prager Med. Wochenschr.* 1902, p. 25.

the single case (Virchow's)¹ for which a dural origin was claimed, has much doubt cast upon it. No mention is made of the state of the eyes except a note of amaurosis, and Borst reminds the author of Dobbertin's case in which metastases appeared in the brain ten years after development of choroid melanoma. Dobbertin² quotes other instances of delayed dissemination, a point to be borne in mind in consideration of the cases where it seems impossible to locate the original focus, particularly when an eye has been enucleated. Cutaneous metastases may be the most striking feature even when the eye is primarily attacked, as in the case reported by Musser.³

As to the relative frequency of occurrence in the two sites, nearly one-third of all melanomata originate in the choroid. The following statistics seem to be carefully compiled, those by Eves from the records of the London Hospital for twenty years:

	TOTAL	EYE	SKIN
Just ⁴	112	26	86
Eiselt ⁵	104	46	58
Eves ⁶	45	12	33
	<hr/> 261	<hr/> 84 (32 per cent.)	<hr/> 177 (68 per cent.)

From the beginning of malignant growth, the duration of life is extremely short. Just⁴ gives an average of three years, Eves⁶ about the same, between two and three. In individual instances it is much shorter. Whiteside⁸ reports a death in six months, and Crocker⁹ one in nine months after first appearance of growth, four after excision. (See section on Malignant Lentigo.) Róna,¹⁰ on the contrary, records a lymph node metastasis which was followed only after four and one-half years by local dissemination over the buttock.

Wilson and Kalteyer¹¹ give the average age of thirteen patients as 43 years and 9 months; the youngest 21, the oldest 65. Shield¹² has seen one case under 20. Out of thirty cases selected at random from the literature, and including ten of my own, the primary tumor developed on the head, generally the face, in five; on the extremities in eleven, chiefly the fingers and feet; on the trunk in fourteen (16.6 per cent., 36.6 per cent., 46.6 per cent, respectively).

As regards the tumors beginning in the skin, it is apparent that by no means all melanomata originate in soft moles. Eves claims that seven of those in his report did not, and the proportion is more than maintained in my cases. Probably no such point of departure ever exists in the choroid, although it must be confessed that nævi occur

in the eye. There has been noticed by many observers, moreover, a great difference in malignancy in pigmented growths, some spreading only locally like rodent ulcer, while others pursue a course only less swiftly fatal than chorio-epithelioma. These facts require explanation, not demonstration of their truth. It is well to remember, also, that even by an expert diagnosis of the peculiar structure called soft mole is not safe except by the microscope. There are pigmented fibromata and kerato-acanthomata, clinically indistinguishable, which never exhibit malignant tendencies. When, however, melanoma does arise from a mole, its origin can almost always be clearly demonstrated unless ulceration or regression has destroyed the original focus. The *navus*, therefore, is the structure to which study must be directed in the attempt to determine the histogenesis of this class of tumors, not to the melanoma itself because the development of the mole has probably been complete for years before any symptom of malignancy arose.

Previous to the beginning of the recent controversy, von Demiéville¹³ wrote of the structure of soft moles and derived them from the endo and perithelium of blood vessels. In 1882 von Recklinghausen¹⁴ published his monograph on Multiple Fibroma of the Skin, in which he gave, with an accurate description, his reasons for believing the soft mole to be a lymphangio-fibroma. These were the form of the cells and their columnar arrangement which suggests strongly the distribution of the lymphatics in the skin. He failed to demonstrate satisfactorily to himself that the spaces in which they lay were lined with endothelium, that any lumen existed between them or that they were arranged on the walls in layers as is generally the case in endothelioma. His view was accepted without question until 1893 when Unna¹⁵ promulgated his discovery of the origin of soft *nævi* from surface epithelium. His contention has found many supporters everywhere; in Germany and Austria: Delbancó,¹⁶ Hodara,¹⁷ Kromayer,¹⁸ Scheuber,¹⁹ Judalewitsch,²⁰ Marchand,²¹ Waelsch,²² Abesser, Joseph⁴¹ and Krompecher;²³ in France: Audry²⁴ and Darier;²⁵ in Great Britain: Walker²⁶ and Whitfield;²⁷ in America: Gilchrist,²⁸ Schalek²⁹ and Ravogli.³⁰ Not even this impressive array suffices to daunt the German controversial spirit. Green,³¹ Bauer,³² Jadassohn,³³ Lubarsch,³⁴ Zeigler,³⁵ Löwenbach,⁶¹ Borst⁷ and Hansemann³⁶ (the last giving his opinion only as regards the malig-

*Krompecher claims the approval also of Orth, Waldeyer and Klaatsch. I have not been able to find the statements attributed to them. Orth, in his "Pathologie," calls the tumor *melanosarcoma*.

nant derivative) oppose Unna's theory stoutly, some of them with open and seemingly undeserved contempt, while Ribbert,³⁷ with his usual independence of thought, takes a view contrary to that of either party. Fick,³⁸ in his admirable paper, concerns himself chiefly with the pigment and the chromatophores, but in passing, remarks that he can trace no connection between epithelium and the *nævus* below. The long list is not quite so appalling as it seems, however. All of those who follow Unna write mere variations on his original theme and some of them may be neglected for the purposes of this paper, although their work in itself is valuable. For instance, Audrey's paper is a mere note, Darier delivers an *ex cathedra* opinion, Schalek's investigation leaves him still in doubt. Some, like Waelsch and Ravogli, consider only melanoma from which histogenesis cannot be properly determined; others, such as Scheuber, failed, though studying *nævus*, to do so by serial section, from some fancied difficulty of technic of staining. Joseph and Waelsch frankly admit that endothelioma may develop from *nævi*.

Unna's Theory of Origin: Briefly his contention is as follows: Studying the *nævi* of infants and children—i.e., in an early stage—he describes a process of downgrowth and snaring off by connective tissue of the epithelium. Before the growth begins there is a metaplasia of the cells of the basal layer and the next few rows of prickly cells by which they shrink, lose their granular appearance and connection with each other, finally coming to lie free in a space in the epidermis and at the same time lose their attachment to the basement membrane. Proliferation begins and carries them into the young corium where in the course of time, as a result of reactive inflammation or in the ordinary course of growth, the connective tissue surrounds them and all trace of their derivation is ultimately lost. They remain quiescent unless some further impulse to growth is imparted to them later in life. At the time of the metaplastic change, the cells may become pigmented. Chromatophores are found between the basal cells, in the connective tissue and around the blood vessels. Pigmentation is not constant and has no relationship to the tumor process. In his recent *Atlas of the Histopathology of the Skin* (1901), Unna speaks of a "yellow swelling" which appears here and there in the epithelium in the shape of yellow masses, a change probably due to pigment degeneration leading to interruption of epithelial connection and streaming into the cutis—in other words, a new name for the same metaplastic process described above but evidently indicating a change in the trend of his opinion regarding the rôle of the pigment. After these

changes have been traced in young nævi, they may be found in lesser degree in those of adults.

While he recognizes that the tracing of epithelial connection is the sole basis of the argument, he adduces certain points which may be considered as corroborative testimony in that they controvert the doctrine of endothelial origin. Condensed, these points are that the cords of nævus cells do not follow the course of the lymphatics in the cutis, that they cease abruptly at the superficial plexus instead of shading into it, sometimes abutting directly on a normal lymph vessel. The growth is further traversed by vessels demonstrably free and lined with flat endothelium; there is no lumen in the cell cords and no intercellular substance. In this resumé, he confesses that the form of the cellular cords in nævi corresponds exactly to Von Recklinghausen's description of "certain papillary lymphangiomata of the skin," but says that their form is due to pressure and there is no resemblance to lymphangioma of the cutis and subcutis. The latter distinction is too fine to be followed by the ordinary observer.

Delbanco¹⁶ goes a step further and describes an invasion of the epithelium by connective tissue strands by which the interpapillary projections are fringed out until the cells lose connection with the surface. The separated epithelia lose their prickles so that they resemble the surrounding fibroblasts which proliferate at the same time. In old nævi this proliferation and segregation ceases so that the *status nascendi* can no longer be seen. The cell nests are often surrounded by lymph channels lined with endothelium, as Recklinghausen contended, a picture due to growth of nævus cells into these vessels. Pigment is not a factor in genesis. Hodara¹⁷ stands alone in his discovery of prickles on the nævus cells, an observation which, if confirmed, would go far to prove their epithelial origin, since no other cells in the body have such appendages. His findings are doubtless due to the presence of fibrin threads, or are pictures produced by fatty degeneration.

Kromayer's¹⁸ contribution is interesting not only intrinsically but from the fact that he is a convert to Unna's opinion, having previously held the opposite. He notes the shrinkage and loss of prickles from the rete cells, giving rise to the formation of encysted masses which later pass down into the corium. Between them, both elastic and collagenous fibers develop which must be the result of the activity of the epithelial cells themselves and aid in the process of snaring off. He asserts in this way a metaplasia between epithelium and connective tissue which, if not altogether erroneous, certainly needs veri-

fication other than that to be found in sections of tissues of full development. Judalewitsch²⁰ holds practically identical views acquired from sections (not serial) of a single, adult nævus.

Krompecher²³ goes over much the same ground with the exception that he holds that nævus cells arise in many places like other epitheliomata directly from proliferation of the basal layer, not through Unna's metaplasia of prickle cells. The cell cords often show a connection with the epidermis. He undertakes to trace the same process in the melanoma of adults and even in the local metastases.

Waelsch,²² Whitfield²⁷ and Joseph⁴¹ have given the subject most careful consideration. The first will not deny the possibility of the existence of pigmented alveolar sarcoma, but as nævi are epithelial (his work was done on melanomata alone) the daughter growths must be referred to the same, not a connective tissue origin. Whitfield offers proof of the derivation of some, at least, of the nævus cells from the epidermis, but the demonstration of such a descent in all is not possible. Nevertheless, he thinks it would be simpler to regard them all as due to one process than to invoke two agencies. He recognizes a marked difference in his cases, two of which showed only local malignancy, a phenomenon for which he seeks an explanation unsuccessfully. Joseph allows an endothelial origin for some nævi.

Ribbert's Theory: Ribbert³⁷ occupies a unique position which is capable of perfect defense, since it cannot be assailed. He holds that one cell only can, *a priori*, give rise to melanosarcoma, the chromatophore. "Since the pigment cells of the choroid are characteristic in shape and in the production of pigment and cannot be identified with any other connective tissue element, it is certain that tumor cells originating from them must represent special cells that cannot be mistaken for the elements of any other sarcoma even if they appear similar in size and shape." In teased preparations, he finds two cells, one branched and pigmented, the other round or oval with coarser pigment granules which is derived by a metaplastic change from the first. In older tumors the transitional forms disappear and the cells themselves appear in simpler, contracted forms. Nævus cells are, therefore, proliferations of chromatophores. Reference has already been made to Borst's orbital tumor composed exclusively of chromatophores. Schalek's²⁹ conclusion is that epithelium separated and proliferating in the corium loses its special character and assumes that of connective tissue elements and of the pigmented cells called chromatophores.

Theory of Endothelial Origin: The burden of disproof seems to

lie with those who hold an endothelial origin for nævi, and it is of its nature difficult because the evidence must be largely negative. Lubarsch³⁴ has, in the examination of young nævi, never been able to trace an epithelial connection for the cell cords. He points out that oblique sections may give rise to many of the appearances described, and objects, like Borst, unequivocally to Kromayer's assumption of metaplasia between epithelium and connective tissue.

Unna's opponents assert that he has never successfully pictured the changes he described, and his preparations, when exhibited, have proved equally unsatisfactory. Unless sectioning is done in serial, perpendicular to the epidermis, and the thickness of one cell, it is very easy to interpret the resulting picture wrongly. Illustrations count for nothing in proof if they are drawn, because they may serve to perpetuate the error of observation. Whitfield, in calling attention to this point, says, rightly, that photographs, even of moderately high magnification, can bring into focus only one plane, and are therefore trustworthy, but his are not altogether clear in their reproductions. There is one point also which seems to have escaped attention and may have been a source of error. Lymphatics of the cutis do not cease abruptly in the center of the papillæ, as is commonly said: they are often continued with an endothelial lining to the base of the epithelium, a thing easy to demonstrate in any œdema of the skin. Unna himself draws attention to a secondary epithelial hyperplasia, both in nævi and melanomata.

The following are Bauer's arguments against Unna's theory: The groups of nævus cells are separated from epidermis by cell free corium. The epidermis, even in its prolongations, leaves off with a well defined edge. The cells differ from epithelial cells in appearance, and in the connective tissue one finds two varieties, the ordinary fibroblast and more rarely cells with vesicular nuclei lying free in spaces, exactly similar to nævus cells. The cells are generally separated by connective tissue. (In this, Ribbert and Kromayer agree.) Lastly, a lumen is often present in the cell columns.

The older writers, Von Demiéville and Boguliubsky,³⁹ seem to stand alone in tracing the origin of soft moles to the endothelium of blood vessels. Since Von Recklinghausen's time, Unna's opponents are fairly unanimous in referring it to the lining of lymph vessels. Borst,⁷ whose opinion is very positive, still calls the tumor melanosarcoma in his recent "*Lehre der Geschwülste*," and it should be remembered, when this term is used farther on, that it always means endothelioma.

Great stress has been laid by many of the writers on both sides of

the controversy on the shape and appearance of the cells, referring even to the appearance of the nuclei in support of their contentions. Hansemann⁷⁶ makes it clear in his monograph on the microscopic diagnosis of malignant tumors that no reliance can be placed on the characteristics of a cell in determining its origin. Quoting Kölliker and His, he gives it as his opinion* that "epithelial character can only mean a juxtaposition of many cells and the covering of a surface, never the peculiarity of any individual cell." The same is true of endothelium with its inveterate tendency to line closed cavities which, in its behavior in new growths, much more closely resembles epithelium than connective tissue. In consequence of their complete differentiation from fibroblasts in the embryonic mesenchyme, endothelial cells form no fibrillar intercellular substance. In fact there is no true pigmented sarcoma cutis except the lymphoid-celled and the Kaposi type in which the pigment is hæmorrhagic.

HISTOLOGY OF THE SOFT MOLE.

In the preparation of tissue for the following study, the utmost care has been used in the hope of avoiding some, at least, of the errors pointed out by the adherents of the theory of endothelial origin. The material consists of nine pigmented tumors from different parts of the body, chiefly the trunk and neck, sessile, raised and pedunculated, taken from individuals of all ages up to forty. Several others were discarded which were found by the microscope not to show typical structure in spite of close clinical resemblance to nævus. In addition to these cases of my own, my friends have allowed me the use of sections from twenty other moles. These tumors were removed with a minimum of handling, fixed in Müller-formol in order to secure a uniform shrinkage, hardened in graded alcohols and embedded in paraffin. The blocks were oriented until the sections could be cut perpendicularly to the epithelial surface. They were never more than ten microns in thickness, often considerably less, and as thin as seven. The stains used were hæmatoxylin-eosin, acid orcein and picrofuchsin. Serial sections were made when the size of the nævus permitted.

Epithelium: The change in this structure, so often described by Unna's school, occurs not only in nævi which have not attained full development but in completely quiescent ones of middle-age. It occurs over the tumor proper and in its neighborhood as well, where there is no other change; it is not constant and may be absent where the neoplasm is most in evidence. The alteration appears in the lower

*Quoted from Whitfield.

layers of the epithelium, basal and the next few cells of the rete. The areas affected are roughly rounded and quite circumscribed with a maximum diameter of ten or twelve cells. (The limits are easily traced in serials.) The individual elements shrink: some in the rete lose their prickles, all of them their granular character of protoplasm which becomes clear and homogeneous. No nuclear change is distinguishable except diminution in size. Since the cells have lost their interconnection, and by shrinking occupy less space than formerly, the appearance is, at times, one of cyst-formation with cellular contents (Fig. 1). At the points where the encysted masses occur there is often a slight projection downward into the corium which at times comes closely into opposition with underlying *nævus* cells (Fig. 2). I have followed this change through serial sections scores of times and have never in any instance succeeded in tracing a complete separation of the metaplastic cells from the mass of the epithelium, nor any connection between them and the *nævus*, nor any failure in the interposed line of connective tissue. Although at the beginning of this study I held the contrary opinion, I am now convinced that there is no histogenetic relationship between the epithelial change and the tumor process. The appearance of fibrils which Kromayer and others have described as penetrating between and snaring off the epithelial cells is a picture probably due to thickness and obliquity of the sections. Unna's school makes no mention of the metaplasia occurring, as it undoubtedly does, outside, but in the immediate neighborhood, of the area actually involved in the mole growth.

There is, it seems to me, an exact parallel for this process in the skin of Paget's disease. The same shrinkage, loss of prickles and change to protoplasmic homogeneity occur in the epithelium of the nipple. The same interpretation of epithelioma has been placed upon it, although, according to Unna and others, the surface cells do not actually penetrate the cutis.

In addition to this circumscribed metaplasia there is generally distributed throughout the epithelium a hydropic degeneration of the individual cells without any evidence of intercellular *œdema*. The mass of the epidermis is thinned and the rete pegs disappear as a result of the atrophying pressure of the growth below. This condition occurs in epithelial tumors when separation from the surface is complete, as well as in those of other origin. Corresponding to clefts (failures of tumor development?) in the mole, the epithelium may show a considerable hyperplasia. Its interpapillary projections are prolonged downward often to a considerable distance, pursuing a

tortuous, and at times, branching course. Their width is much reduced. This overgrowth, which Unna has described and which occurs also in melanoma, naturally complicates the picture, especially when the tips or sides of the pegs come into close relation with the nævus cells. It is a phenomenon common in neoplasmata and their metastases near a covering epithelium. The horny layer is generally much thickened and the hair follicles increased in size.

The Cells: Although its lateral development may attain great dimensions (covering the whole of the back in Foster's case) the nævus shows relatively little depth. In most cases the level dividing the papillary body from the reticular layer marks its lower limit. The whole thickness is rarely greater than one centimeter. The cellular mass is composed of elements of extreme variety. The typical nævus cell is a rounded or polygonal body with a clear homogeneous protoplasm, which has no affinity for dyes of any sort unless it is picric acid. The protoplasm frequently shows a refractive border simulating a cell membrane. The nucleus upon which so much stress has been laid by cytologists as indicating epithelial genesis is by no means always vesicular. It is often seen to stain rather diffusely with basic dyes and to show points of deeper staining without the network of vesicular nuclei. When vesicular nuclei are found the protoplasm is apt to show a granular acidophile character. The size of either variety is about twice that of the leucocyte. It may be much smaller, and in that case the shrinkage is chiefly at the expense of the protoplasm, which may be reduced to a mere thread about an oval diffusely staining nucleus. The cells may be perfectly flat or spindle-shaped, still with a clear protoplasm. There is a certain amount of giant cell formation in some nævi which seems to have been the result of the fusing of neighboring elements. (Figs. 2 and 4.) The giant cells contain usually five or six, but at times many more nuclei, irregularly disposed in a protoplasmic body which may be clear, granular and acidophile, or basophilic, as Fick has described. This last appearance may be due to a degenerative process possibly allied to the mucinous. Fatty degeneration also occurs throughout certain nævi, as in a large one in my collection taken from a young girl's cheek. The detritus is dissolved out in hardening, leaving intracellular vacuoles bridged by protoplasmic threads or in complete destruction denuding the nucleus. Mitosis must be excessively uncommon, for I have never succeeded in demonstrating a single figure. The prickles which Hodara mentions are not demonstrable in my specimens. The filaments occasionally crossing a gap from one cell to another invariably turn out

to be threads of fibrin, cell remnants from fatty degeneration or connective tissue.

The cells are disposed in different fashions: in clumps or alveoli near the surface where giant cells are usually found when present, and in strings or columns running from these masses perpendicularly downward to the limit of the growth. The columns are usually composed of two or more rows of cells between which a lumen may be apparent. The intercellular space is a rather common condition. (Figs. 2 and 3.) It is not continuous throughout the entire column, and might be considered an artifact if it could not be traced in serial sections into the alveoli near the surface which are continuations cut in cross section of the cellular columns. At times a definite canalization appears in the superficial nests, the lumen bordered by *nævus* cells. The cells in such a formation are not limited externally by the flat endothelium of lymphatics as Delbanceo claims, holding that they are epithelial cells which have penetrated the vessels but are in close relation to the surrounding connective tissue. Regular disposition is not always the case. The cells may lie in single, irregular strands or even entirely separated from their fellows. (Fig. 4.) They are occasionally gathered in large masses in which there is no regularity of disposition. In the case of the smaller cells with little protoplasm, the masses may have the appearance of nuclei closely opposed without a cell body. The lower border of the tumor is generally sharply drawn at the papillary-reticular level: it may be, however, frayed out irregularly, single cells or columns projecting into the reticular stratum. This irregular border, whose existence Unna denies, is illustrated in Fig. 3.

Negative evidence is not sufficient to controvert any doctrine so well defended as Unna's has been. If there is to be a demonstration of the endothelial origin of these tumors it must be by Hansemann's dictum, by indisputable exhibition that blood or lymph channels are directly continuous with the nests and cords of *nævus* cells. This task is no easier than that of demonstrating an epithelial genesis; but at the extreme border of young, growing moles, it can be done. Serial sections are required to demonstrate the point unless one is so rarely fortunate as to cut in the length of the vessel. In such a case as that photographed in Fig. 5, one of the vessels of the superficial lymph plexus is seen running into a nest of cells at the outer edge of the mole. The endothelium of the lymphatic shows, as in interfascicular endothelioma, a gradation from the ordinary flat pavement cell

through a gradual increase in height, and in the size of the nucleus to cells which are typically nævus, with clear protoplasm and vesicular nucleus. There is no interruption by a twist in the vessel or by interposition of connective tissue. The transition takes place in one plane. In sections from another nævus (Fig. 6) there are spaces lined with cuboidal nævus cells and filled with blood, an appearance probably due to an accidental communication between them and the blood channels. It is entirely possible, however, that in the differentiation from the mesenchyme certain cells intended to form blood vessels failed to assume their normal flat condition, and the connection between the spaces they line and the ordinary vascular supply remains pervious. This explanation necessitates genesis of nævus cells from lymph and blood vessel endothelium which, while not too great a strain on the imagination, seems hardly necessary, since the supposititious communication of the two sets of vessels is an adequate explanation.

Connective Tissue: The network of elastin limiting the lower layer of epithelial cells is not much disturbed in nævi. In the rest of the tumor it is fairly continuous about the cords and alveoli; in other parts it is broken into short fibrils without regular arrangement, but not degenerated. The collagen is in worse case. Its normal arrangement exists nowhere. Its fibers are twisted and broken, presumably in the process of elevation of the nævus above the surface. Occasionally it seems to have a granular character, but there is no degeneration in it demonstrable by staining methods.

The pigment in nævi never appears in very great amount and is always contained in chromatophores, nævus cells and in the basal layer of the rete. There are no free granules; a few find their way into the tumor cells as in melanoma. Free iron and crystals cannot be demonstrated, hence the conclusion may be drawn that it is all of one character, melanin. The cells are spindle-shaped or branched and lie free in the supporting tissue, closely applied to the periphery of the nævus nests or with their branches thrust between the basal epithelial cells. They are particularly noticeable near the areas of epidermic metaplasia in which the cells, while they may be entirely free, usually show a quantity of pigment granules in their protoplasm.

Ribbert has shown, by injection, that the blood supply is noticeably meager. Few blood vessels can be demonstrated between the cell areas. Their course becomes irregular through the exigencies of development necessitated by the irregularity of disposition in the tumor masses. When the nævus becomes lobulated, fully formed vessels,

considerably dilated, can be demonstrated in the septa. Normal and dilated lymph vessels occur in small number.

Birth of the Nævus: This phrase Unna uses to indicate the gradual elevation of soft moles above the surface. It is due to two factors: (a) the increase of the tumor mass in the papillary layer, and (b) diminution of elastin. This latter is not only decreased but broken into short lengths and, remaining intact at the base of the tumor, with every movement of the skin it causes the inelastic nævus to become more and more detached from subjacent structures. With it may be carried up hair follicles intact with their normal arrangement of elastin. By this process of shaking loose, a flat nævus may become elevated and in the end pedunculated. It also explains the apparent development of soft moles rather late in life when cellular growth has ceased.

It has been pointed out that pressure of the tumor causes atrophy of the rete pegs over it. Where the growth is lacking or has not reached the general point of development, the projections remain and increase in length. As the structure of the derma is less altered at such points, it does not yield to the process of projection so readily and sulci are formed in which hyperkeratosis is frequent. The furrows are superficial in flat tumors, deeper in proportion to the elevation. When the cornified cells in them separate, the nævus has the lobulated appearance of the raspberry. Constrictions like these may cut off a portion of the growth completely and cause its sequestration.

Unna describes molluscoid, fibromatous and lipomatous degenerations in nævi. The first is to be distinguished from systemized fibroma molluscum which is a neurofibroma. As a result of a lymph stasis, the nævus becomes œdematous, the cells at the periphery undergo hydropic degeneration and disappear. In the last stage, the cellular cords may disappear and sections show only a soft, œdematous fibrous tissue. In the second variety the fibrous tissue is increased over and around the nests, prevents their development and brings about a certain amount of pressure atrophy. The lipomatous variety, from his description, I should judge to be a mixed tumor of fat and nævus cells, a conjecture to which color is lent by the fact that he has seen it on the neck and the genitals. I have not chanced upon any of these pictures.

In conclusion of this section it may be well to review the evidence presented. In addition to the demonstration of the continuity of structure between lining endothelium and groups of nævus cells which

must be regarded as convincing at least for the moles in which it occurs, there are certain after-considerations which point to an endothelial origin for those cells. A cytological diagnosis is not to be thought of in such a discussion, but since Unna's school makes so much of cell characters, they may be reminded that there is a parallel in endothelioma for every type in nævus. The typical nævus cell with its clear protoplasm, condensed border and diffusely staining nucleus with darker nucleoli, especially, occurs in every angioma hypertrophicum whose genesis is unquestioned. Not only the cords but the superficial alveoli show well-marked lumen bordered by the cells alone, which may show a concentric arrangement. The nævus does not always show a sharp border at the reticular layer but shades into it with irregularly scattered cells. The same is true, at times, of the lateral aspects. The columns and nests of cells are seen to be continuous in serial sections, with sometimes a lumen unbroken throughout. They may or may not follow the ordinary distribution of the lymphatics (von Recklinghausen says they do), but if not, the fact is not surprising, since in nævi no structure retains its normal arrangement. Lastly, the metaplasia of prickly cells, which is held to be the true point of departure, occurs at a considerable distance from the nævus, and when it appears in close opposition to nævus cells apparent continuity should be viewed with suspicion until it is demonstrated that the appearance is not a result of faulty technic or a failure to demonstrate an intervening layer of elastin. Exactly the same picture occurs in the metastases of melanoma in the skin, and here the apparent derivation of nævus from epithelial cells certainly can be regarded only as one of those metaplastic changes so common in the neighborhood of cellular tumors which Unna himself describes with minute care. Nearly all of these points are in direct contradiction of Unna's statements. I should not venture to make them if they could not be supported by evidence in the shape of photographs in almost every instance.

PIGMENT AND CHROMATOPHORES.

Pigment: The coloring matter of nævi and melanomata, now generally called melanin, is an amorphous, finely granular material, always intracellular in moles, but occurring free in the tissues, blood, and urine in rare cases of malignant growth. It contains no free iron and consequently does not react with the ammonium sulphidë or Perls'⁴³ potassium ferrocyanide-hydrochloric acid test. It is soluble in strong alkalis in the form of melanates from which it can be precipitated

as melanic acid by weak acids. The melanic acid so obtained contains C, H, O, N and S in proportions varying with the situation and case. It may be bleached in the tissues by various reagents, hydrogen peroxide, chlorine, and best of all by Whitfield's modification of Alfieri's method. Since depigmentation may be necessary in certain tumors whose masses of it obscure the cell borders, it is well to give it in full. (1) Soak the section over night in a 1-10 solution of potassium permanganate, and (2) decolorize in dilute sulphurous acid, U. S. P. The sections are uninjured and may be stained in any way, but a certain amount of the brown color will reappear with the use of bases or alkalies. The pigment may be stained by basic dyes, safranin, methylene blue, polychrome methylene blue. According to Unna,⁴⁶ by careful decolorization of polychrome with tannic acid a differentiation can be made between hæmosiderin and melanin, the former retaining the greenish-blue tint longer. The pigment granules, Barlow⁴⁷ states, reduce osmic acid appearing in section as clear black points after the fat is dissolved. In chromic acid preparations (Müller's or Flemming's fluid) in which the fat persists, the reducing action of the pigment is not apparent.

As to the origin of this material, the question is as far as ever from settlement. One side holds that it is derived from hæmoglobin by a further change than that represented by the iron containing hæmosiderin, the other claiming that it is autochthonous, elaborated by the activity of the cells themselves. Schmidt⁴⁸ asserts that the ochre granules of hæmosiderin break up into the fine black ones of melanin and are carried by chromatophores which are leucocytes to the inter-epithelial lymph spaces where the pigment, by breaking down of the carriers, is turned over to the epidermic cells. Kölliker⁴⁹ holds that melanin is manufactured from hæmoglobin by connective tissue cells which are beyond question endowed with amœboid movement. Karg⁵⁰ offers striking proof in support of this theory by his experiments which have been repeated by Carnot in skin grafting. Pigmented skin grafted on a white body soon loses color: vice versa: white skin in a negro becomes black. Audry believes that blood pigment is conveyed to the epidermis and there built up, to be afterward transferred by wandering cells which either pass into the lymph vessel or remain in the interstices of the connective tissue where they become fixed and stellate.

Delépine, Jarisch, Joos, Post and Ehrmann hold the opinion that the pigment is the product of cell activity, Delépine⁵³ referring it,

like other products of glandular function, to certain epithelial cells; Ehrmann to the pigment cells. Post's investigations lead him to the conclusion that pigment arises as a result of a special metabolic process in the skin in ordinary and branched epithelial and connective tissue cells.

As to the minute structure of melanin, Post and Ehrmann⁵¹ both hold that it may occur in tiny rods as well as granules. These consist, according to Ehrmann, of a semi-fluid ground substance which is primordially colorless, but is capable of staining with basic dyes, and with which the coloring matter is mixed. Bohn,⁵⁴ following a suggestion of Carnot,⁵² has proposed a theory that the pigment granule has a biological individuality and is composed of a living fundamental substance and a chromogenic body which is possibly of nuclear origin. The two may be separate or combined, and the chromogen is capable, under various influences, of increasing or diminishing its function. Browicz⁵⁵ finds no difficulty in reconciling the difference of chemical constitution between hæmosiderin and melanin. In melanoma, much of the pigment is bound to a hyalin substance which contains sulphur in quantity sufficient to account for the sulphur extracted from melanin. Pointing out that hæmatoidin and bilirubin are iron-free derivatives of hæmoglobin, he claims that crystalline non-ferruginous pigment can be obtained from hæmosiderin by treating it with hydrochloric acid. In melanoma cells he found both erythrocytes and pigment granules; here and there in cell vacuoles, brown, needle-shaped crystals, a derivative of hæmoglobin containing no free iron. With the exception of the crystals, which were not found, I can support him in this observation. (See Case III, next section.)

So far as nævi are concerned, the relationship of pigment to tumor growth is well summed up by Fick:

1. Pathological increase of pigment is not a causative factor in tumor growth. Cell proliferation and formation of pigment are coördinated processes.

2. Only those nævus cells are pigmented which are in close apposition to melanoblasts.

3. The processes of the melanoblasts (chromatophores) lie partly between the nævus cells and in the deeper layers of the cutis about the vessels.

4. In regard to pigmentation, nævus cells are like those of the epidermis.

Several authors, with Heinz, consider the presence of pigment of casual moment in the production both of nævus and melanoma.

The Pigment Cells: Ribbert, who hold that nævus is only a metaplastic development of the pigment cells, calls them chromatophores, a name which has been generally adopted because it is non-committal except as to their carrying function. Ehrmann, and after him Fick, prefer the title melanoblasts. Ehrmann's conclusions, drawn from long and patient research on the subject of pigmentation in the animal series, are entitled to every consideration. His melanoblasts are special cells very early differentiated from the mesoderm, which elaborate pigment at the expense of the hæmoglobin diffused there. They have no mobility of their own, but the granules in their protoplasm exhibit Brownian movement. In the course of development they are found englobed in the epidermis or in the hairs. They reproduce themselves indefinitely.

Unna, in spite of the general agreement that melanin does not exist free in the tissues except in rare cases of melanoma already noted, doubts the existence of special pigment cells, and says that their branched appearance is due to packing with pigment granules of lymph spaces radiating from a central pigmented connective tissue corpuscle. Many authors make a distinction between chromatophores and pigmented fibroblasts by their difference in shape. Granting Ehrmann's assertion of the individuality of the first, there is no reason why, in hyperpigmentation of any sort, connective tissue, as well as epithelial cells, should not become pigmented.

By a process of deduction, unjustified by the facts in hand, an effort has been made by Loeb and other writers to compare chromatophores to the chromatoblasts of cephalopods, reptiles and fishes, and so to impute to them an epithelial origin. The majority of observers are convinced that their derivation is mesodermal, and whether they move to or from the epidermis, that they are amœboid and capable of carrying pigment. Those who claim an epithelial origin for pigment hold that the movement of pigment cells indicates a removal of coloring matter from this focus: the hæmatogenic school, that they pass from the vessels to the final repositories. Melanoma furnishes a fairly convincing demonstration that melanin is brought to the tumor cells from outside, and is not manufactured by them. Alveoli of tumor cells are often seen almost pigmentless, surrounded by masses of chromatophores whose branches may be thrust between them and which can be traced to a point next the endothelium of capillaries.

In the endothelium of these capillaries are englobed in places fragments of hyalin material, reacting like the stroma of red cells.

NOTE.—Hertwig has pointed out the fact that in certain protozoa nuclear chromatin is capable of transformation into pigment. In this connection, a single nævus has recently come into my possession; the nuclei of whose cells showed, beyond doubt, a pigment deposit. At full development, the nuclear structure was transformed into a mass of brown granules surrounded by a clear membrane. After what has just been said of reasoning by analogy from lower animals to higher, I can do no more than record the interesting and, in my experience, the unique observation.

(To be Concluded.)

DESCRIPTION OF PLATES.

PLATE I.

- FIG. 1. Metaplasia and pigmentation of epithelium in nævus from infant. (Photograph by Dr. J. A. Fordyce, from case of Dr. T. C. Gilchrist.)
 FIG. 2. Nævus metaplasia of epithelium. At some distance below, groups of nævus cells, largely giant cells.

PLATE II.

- FIG. 3. Soft nævus, with papillary projections. Definite lumina in the cords of nævus cells. The lower border of growth, instead of the usual sharp delimitation, shades into the reticular layer. Prolongation of rete pegs.
 FIG. 4. Nævus with typical cells near epithelial border, clear protoplasm, false cell membrane. They occur singly and in groups; a few giant cells. Two of the alveoli show a lumen, bordered by rows of cells.

PLATE III.

- FIG. 5. Soft nævus. Tumor growth at right into which runs fusing with its cells a lymphatic of the plexus between the flattened papillary body and reticular layer. Well defined lumina in cell masses.
 FIG. 6. Nævus in which the alveoli shows central cavities filled partly with blood and partly with lymph. They are lined by small cuboidal cells or flat endothelium indifferently. Elsewhere, typical nævus structure.

THE LIFE CYCLE OF THE ORGANISM OF "DERMATITIS COCCIDIODES."*

By S. B. WOLBACH, M.D.

(From the Pathological Laboratory of the Boston City Hospital.)

THE organism here described is one isolated from a disease belonging to a clinical group variously called Dermatitis Coccidioides, Protozoic Dermatitis, Blastomycetic Dermatitis, Blastomycosis, Oidiomycosis.

In all about forty cases have been reported. Twenty-nine of these

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Fig. 1.

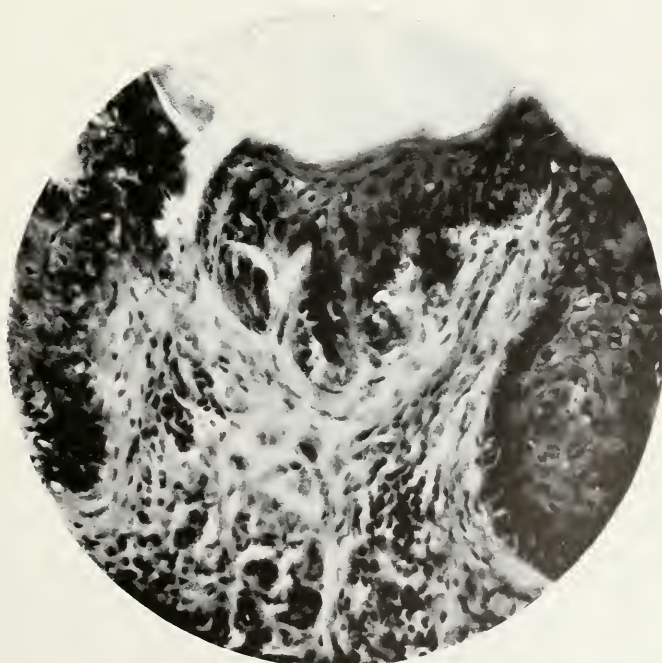


Fig. 2.



Fig. 3.

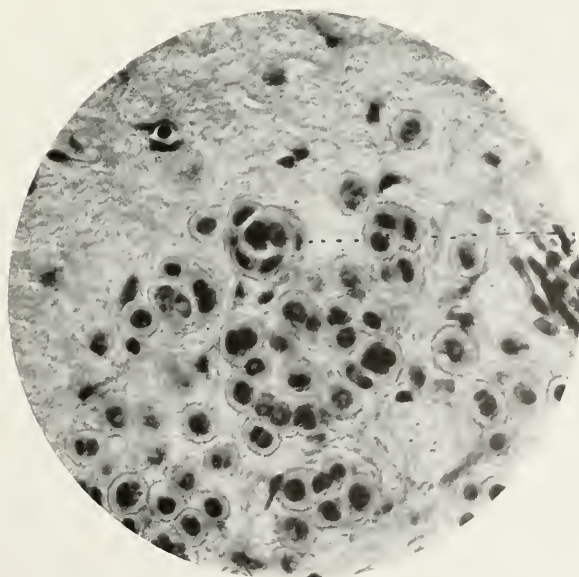


Fig. 4.

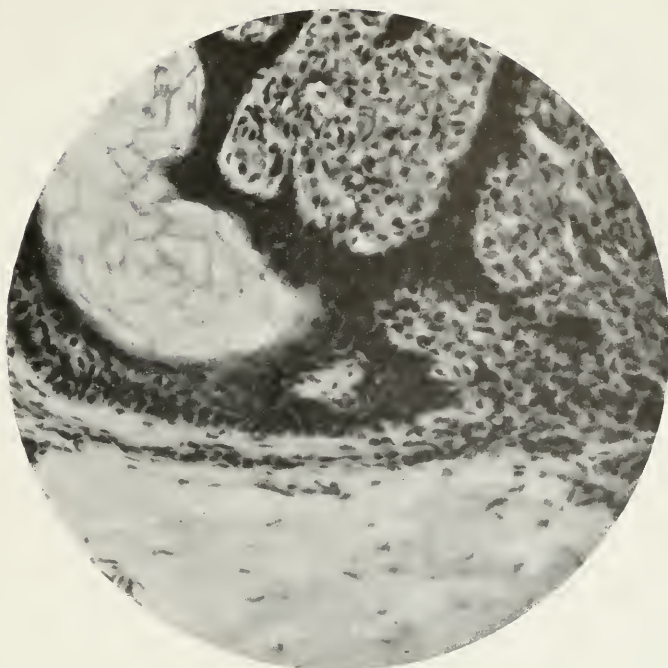


Fig. 5.



Fig. 6.

are included in the reviews of Ricketts (*Journal of Medical Research*, Vol. VI., No. 3) and of Hyde and Montgomery (*Journal of the American Medical Association*, June 7, 1902). Since these two reviews are so thorough, and since no advance has been made with the subject since their publication, a further review for the sake of including the cases published since then would not be justifiable.

Besides the one reported here, pure cultures have been obtained and imperfectly studied in twenty cases.

While all the cases reported are so similar that they have been included in one clinical group, the organisms recovered have varied greatly. Hyde and Montgomery believe that they may have to be classified in several "distinct botanic groups." Ricketts has concluded that all of the seventeen organisms studied by him may be classified as belonging to the genus *Oidium*, and has distinguished three varieties:

1. Blastomycetoid or yeast-like.
2. *Oidium*-like.
3. Hyphomycetoid.

All of these yield in tissue, whether in the human or in experimental animals, characteristic spherical bodies having a doubly refractive membrane or capsule, and a granular or reticular protoplasm. In pure cultures they grow either as a mycelium not yet properly classified or as a budding fungus, *Torula*.

The organism described here resembles most closely the *Oidium*-like type of Ricketts, though it does not proliferate by budding. It is very different from either the Blastomycetoid or Hyphomycetoid types. After comparison in culture and by inoculation it has proved to be identical with the organism isolated by D. W. Montgomery, Ryfkogel, and Morrow from their case of "Dermatitis Coccidioides" (*JOURNAL OF CUTANEOUS DISEASES*, Vol. XXI., January, 1903). Among all other cases reported those of Wernicke (*Centralblatt für Bakteriologie*, XII., 1892), Rixford, and Gilchrist (two cases) (Johns Hopkins Hospital Reports, No. 1), and Ophüls and Moffit (*Philadelphia Medical Journal*, June 30, 1900), were probably due to this same organism. I am indebted for the material to Dr. William P. Bolles, of Boston, in whose practice the case occurred, and to Professor Malory, who made the first pathological diagnosis. The clinical side of the case will be reported later. It does not materially differ from some of those already published. The patient, who is still living, has travelled extensively abroad, and has lived in California and in Mexico. The duration has been about three years. The lesions have been wholly subcutaneous. In two places, over the forehead and mastoid,

the process extended through the bone, stopping, however, at the dura. Those lesions operated upon have not recurred. There is as yet no internal involvement.

The cultures were obtained directly upon glycerin agar from tissue removed at operation and indirectly from a subcutaneous abscess produced by inoculation of a rabbit. The cultures thus obtained were identical. Growth appeared in two to seven days. The colonies very closely resemble young colonies of *Oidium lactis*. They appear first as small, circular, translucent, grayish discs, almost imperceptibly raised above the surface of the medium but penetrating deeply into the substance. Microscopically there is a radiating mass of coarse, branching, occasionally segmented mycelia, which when growing rapidly are homogeneous and refractive, otherwise showing vacuoles and brightly refractive granules. The mycelium has a distinct membrane (Fig. 1).

Old colonies frequently have an opaque white, elevated center due to aerial hyphæ bearing gonidia. Very old colonies become completely thus transformed and may acquire a brownish tinge, which is also slightly imparted to the medium. At this stage the colonies contain great numbers of the spherical bodies which resemble those found in tissue. These bodies do not show budding, though this picture is sometimes simulated by a process which will be explained later. In bouillon each bit of inoculation material produces a globular white fluffy thistle down-like mass, which settles to the bottom. These masses, each one representing a colony, are made up of radiating mycelia centering in the bits of material that were used for the inoculation.

Media containing saccharose, dextrose, and mannite are not fermented.

This microörganism has proved highly virulent for guinea-pigs and rabbits in whom the lesions are very similar to those produced in tuberculosis. The lesions go on to necrosis and pus formation; in the pus are found the spherical bodies. As found in the pus these spheres vary greatly in size, measuring from five to thirty-five microns in diameter (Fig. 2). Some of the large spheres are filled with smaller spheres having a diameter a little less than that of the smallest free forms, and occasionally these large bodies are found ruptured and in the act of liberating the smaller contained bodies or spores. This, together with what is found in tissue, is proof of endogenous reproduction (Figs. 3 and 4).

Nothing was ever seen proving reproduction by budding, though

the organisms are frequently found in pairs, suggestive of such a process. Study with the warm stage in hanging drop using bouillon, fresh blood serum, salt solution, and water failed to indicate any change. On agar slides¹ and on agar hanging block preparations (H. W. Hill, *Journal of Medical Research*, 1902, p. 202), or as soon as conditions favorable to growth are produced, instead of getting budding we get the production of the mycelium. From one to eight filaments may be seen to grow from a single sphere, apparently from the capsule; the protoplasm meanwhile may remain shrunk within the capsule and without demonstrable connection with the growing filaments. On agar slides covered with a cover glass the first filaments which appear are on the side of the sphere toward the nearest edge. They continue to grow in this direction, influenced apparently by the supply of oxygen (Figs. 5 and 6).

Reproduction by budding is simulated by this organism in two ways. In the pus are frequently found pairs of spheres of equal or unequal sizes, the contiguous surfaces of which are flattened and always separated by a membrane. The arrangement in pairs is accidental, and represents two spores which, lying side by side, have never separated. In old cultures there are found occasionally pairs of spheres between which there is actual continuity of protoplasm. But in these cultures are also many spheres giving off mycelia, which having found unfavorable soil have produced other terminal spheres. This process occurs at a varying distance from the mother cell; as a result dumb-bell figures are frequently formed. The shorter the connecting filament, the greater is the resemblance which the figure bears to the process of budding.

The question of reproduction by budding is an important one from the standpoint of the classification of this organism. Obviously it cannot be a blastomyces. Neither can it be included in the Oidium-like group of Ricketts, since the organisms of that group may reproduce by budding.

In tissue, as in pus, there is a very great variation in size of the spheres. The organisms occur in groups, and are best demonstrated

¹ These slides are made by flowing sterilized microscopic slides with melted agar and allowing the agar coating to harden, after which they are inoculated by streaking with a platinum loop holding pus containing the organisms. A cover-slip is then placed over the inoculated surface and the edges sealed with a hot wire. For short observations preparations thus made are as useful and easier to handle than the hanging block preparations of Hill, while they are far easier to prepare. Slides are readily sterilized in the flame, and all else that is necessary for their preparation is a few tubes of any sterile agar culture medium and a bell-jar to protect them from the dust while the agar is solidifying.

in the inflammatory tumor arising from the omentum after intraperitoneal inoculations (Fig. 7). The mycelium is never found in lesions, and there are no evidences of reproduction by budding.

Mallory's eosin and methylene blue stain has proved the most satisfactory of many tried for demonstrating these organisms, as it brings out the structure of the protoplasm and capsule most clearly. The protoplasm is stained blue, the capsule red. The protoplasm has no constant appearance; it may be finely granular, almost homogeneous, or coarsely granular, reticulated, or vacuolated. Staining with Scharlach R. in fresh section shows occasional spherules taking the fat stain. The capsule which has a double contour is usually homogeneous, but sometimes is radially striated. This appearance is most probably due to the same process which results in the spines and club-like projections seen after intravenous inoculations. Among the largest sized bodies there are forms which can only be explained as successive stages in the formation of spores, from the first indication of segmentation of the protoplasm up to spheres filled with smaller spheres, each one possessed of a definite membrane (Figs. 8, 9, and 10). Reproduction in this manner explains the occurrence of the organisms in groups, and the unequal growth of the liberated spores explains the great variation in sizes.

Segmentation seems to occur only in those forms having a finely granular protoplasm, and not in those with a coarsely reticular or vacuolated structure.

The first indication of the process is a peripheral division of the protoplasm, which extending inward results in a mass of polyhedral segments, separated from one another by clear spaces. Later the segments become spherical or oval and surrounded by a hyaline eosin-staining matrix, which is densest where it is in immediate contact with the segments.

The spores thus produced are liberated by the breaking of the capsule of the mother cell. They are separated and preserved in groups by the ingrowth of the inflammatory tissue. It is probable that general dissemination does not take place until necrosis occurs, and the organisms find their way into the lymphatic or blood streams.

Thus far the change from the sphere to mycelium has been demonstrated. To demonstrate the change from filaments to spheres two methods were resorted to.

1. Intravenous inoculations of rabbits, and the histological examination of the organs at different stages (from twenty-four hours up to several weeks).
2. By introducing into the peritoneal cavity of rabbits pure cul-

tures, sealed in collodion capsules, and examining them at different periods (from a few days to several weeks).

Both methods have yielded the same results, and have shown that each sphere develops from a segment of the mycelium. This process is best seen with the intravenous inoculations, as the results obtained after Zenker fixation with thin sections, and the eosin methylene blue stain bring out many details not seen in fresh preparations.

Inoculations were made into one of the ear veins of the rabbits. The lungs proved to be the organs best suited for study, as the lesions there produced are most numerous and most easily visible. The masses of filaments act as small emboli which are very soon invaded by leucocytes and endothelial cells, so that at the end of forty-eight hours there are large areas of inflammatory reaction in which it is very difficult to find the organisms.

After inoculation most of the filaments disappear with great rapidity; at the end of twenty-four hours they are broken up into coarse granules which stain with eosin, and it is only at the center of the embolus that we find these preserving the form of the filament. A few filaments, however, usually remain viable, and these increase in size and break up into rectangular blue-staining segments (Fig. 13).

Forty-eight-hour lesions show rows of such segments with increased size, while the membrane has undergone a change which makes it take an intense stain with eosin. At this time we also get the beginning of a hitherto unobserved phenomenon, the production of clubbed and pointed projections radiating from the membrane, first, of what is the mycelium and of what later becomes the spherical bodies (Fig. 14). These segments continue to increase in size so that at the end of seven days we get perfect spheres, some of which may have developed spores. Fig. 15 shows a row of spheres which have developed from the segments resulting from the division of a filament. At one end is a piece of the filament which has remained inactive.

Fig. 17, from a rabbit seven days after inoculation, shows endogenous sporulation and the projections from the capsule when at their best.

These projections have never been seen until the end of forty-eight hours after inoculation. They have only been seen after intravenous inoculations into rabbits. Their first appearance is coincident with the swelling of the segments and the outward bowing of the membrane. They show them as small knob-like excrescences, which after Zenker fixation take an intense stain with eosin. They spring from the membrane or capsule, and have no demonstrable connection with the blue staining protoplasm. They are persistent through all stages, though

they do not increase in size after the first week. In the most perfect types the filaments attain a length of five to eight microns, most of them having clubbed ends; some, however, taper out into delicate thread-like ends. The picture then somewhat resembles that produced by the actinomyces and the acid-fast bacilli.

In collodion capsules we get the production of the spherical bodies by a precisely similar process, namely, the swelling of the individual segments and the acquisition of a thick capsule. The spheres thus formed increase in size as in tissue, and finally complete the cycle by endogenous sporulation (Figs. 11 and 12).

DESCRIPTION OF PLATES.

PLATE IIIa.

FIG. 1.—Edge of seventy-two-hour agar colony. Unstained, $\times 260$.

FIG. 2.—Spheres found in pus from experimental guinea-pig inoculation. Unstained, $\times 540$. Note the great variation in sizes.

FIG. 3.—Spheres containing spores from pus of experimental guinea-pig inoculation. Unstained, $\times 540$.

FIG. 4.—Ruptured spore case, in pus from an experimental guinea-pig inoculation. Unstained, $\times 540$.

FIG. 5.—Sprouting sphere. Four hours incubation, at 37° C. on agar, of a sphere found in pus from an experimental guinea-pig inoculation. Unstained, $\times 540$.

FIG. 6.—Same as Fig. 5 after twenty-four hours incubation. Unstained, $\times 400$.

PLATE IIIb.

FIG. 7.—Spheres in inflammatory omental tumor in a guinea-pig. Sixteen days after inoculation. Eosin and methylene blue. $\times 1,000$.

FIG. 8.—Beginning segmentation of a sphere. From an inflammatory omental tumor in a guinea-pig, thirty-six days after inoculation. Eosin and methylene blue. $\times 1,000$.

FIG. 9.—Same as Fig. 8. More advanced process of segmentation.

FIG. 10.—Sphere containing mature spores. Note striated capsule. From an inflammatory tumor of the omentum in a guinea-pig. Sixteen days after inoculation. Eosin and methylene blue. $\times 1,000$.

FIG. 11.—Contents of a *collodion* capsule after seven days' stay in the peritoneal cavity of a rabbit. Unstained, $\times 540$.

FIG. 12.—Similar to Fig. 11, but after eighteen days in a rabbit's abdomen. Note two ruptured spore-bearing spheres. Lower magnifications. Unstained, $\times 290$.

PLATE IIIc.

All photomicrographs on this plate are taken at a thousand diameters from sections of rabbits' lungs after intravenous inoculation. Sections were stained with eosin and methylene blue.

FIG. 13.—Twenty-four hours after inoculation. Note segmentation.

FIG. 14.—Forty-eight hours after inoculation. Note investing membrane and projections.

FIG. 15.—Seven days after inoculation.

FIG. 16.—Three days after inoculation. Shows a degenerated filament in a giant cell. At one end there is an attempt towards the production of the projections found with active segments.

FIG. 17.—Seven days after inoculation. Shows three spheres. One ruptured and invaded by connective tissue. The middle one contains spores. The remaining one is cut at a tangent.

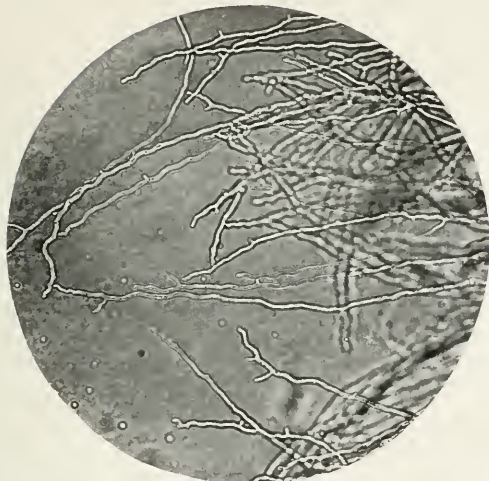


Fig. 1.

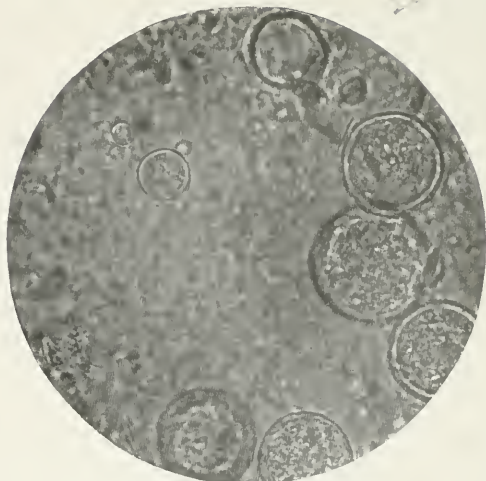


Fig. 2.



Fig. 3.

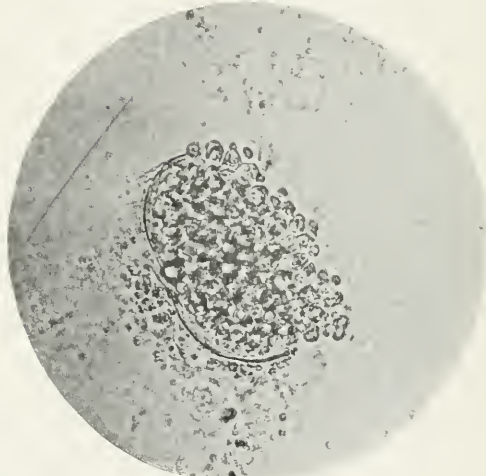


Fig. 4.



Fig. 5.



Fig. 6.

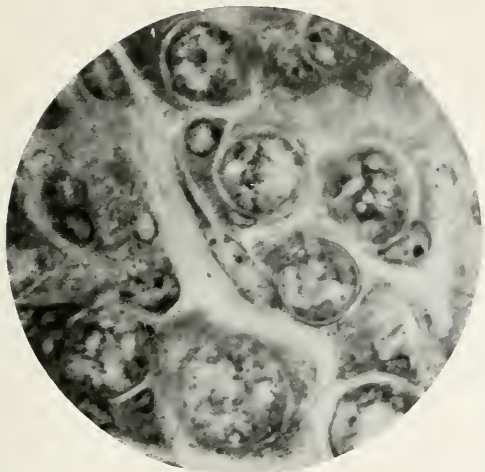


Fig. 7.

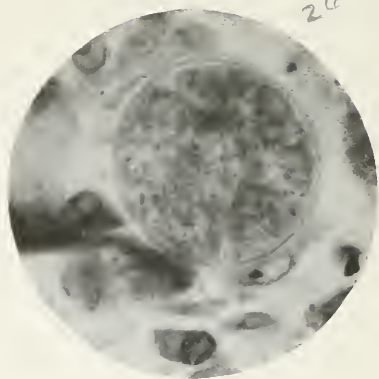


Fig. 8.

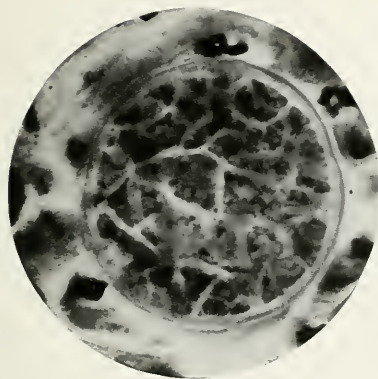


Fig. 9.



Fig. 10.

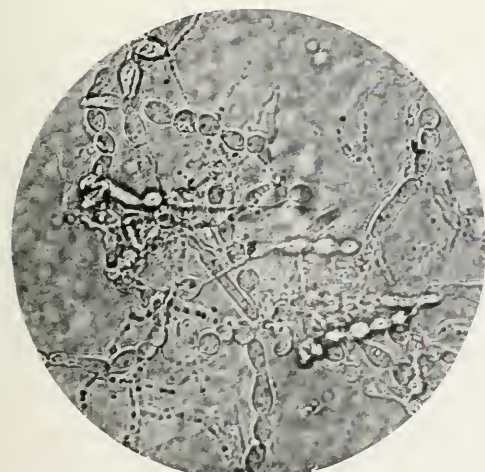


Fig. 11.

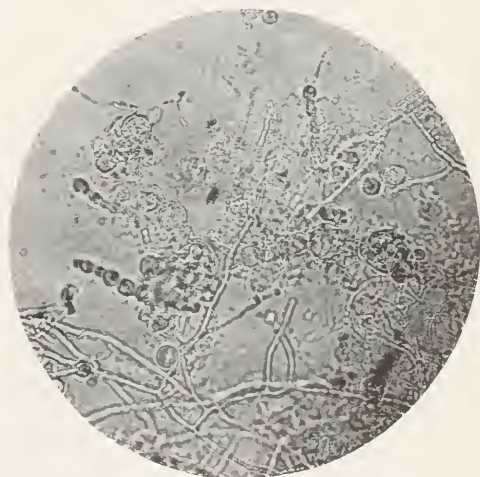


Fig. 12.

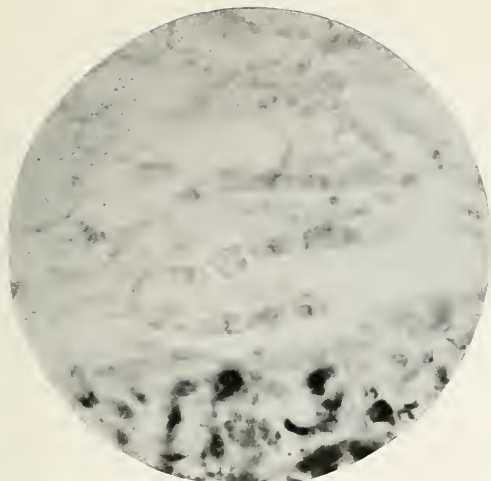


Fig. 13.

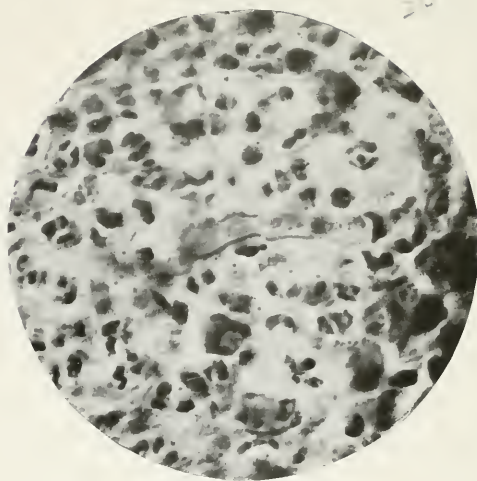


Fig. 14.

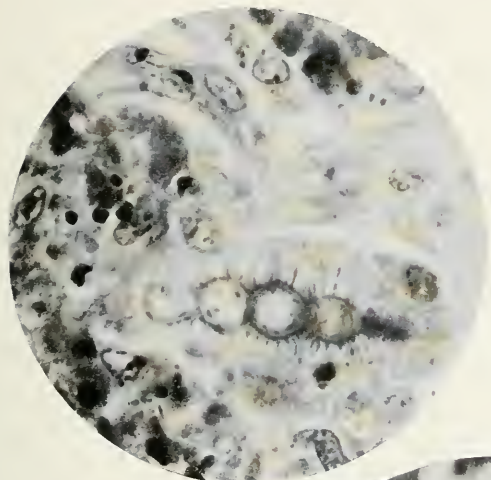


Fig. 15.

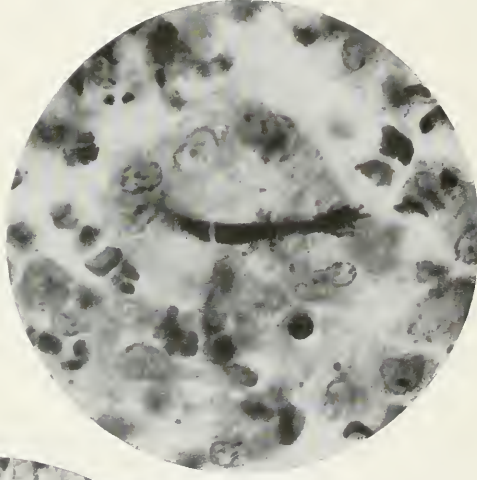


Fig. 16.

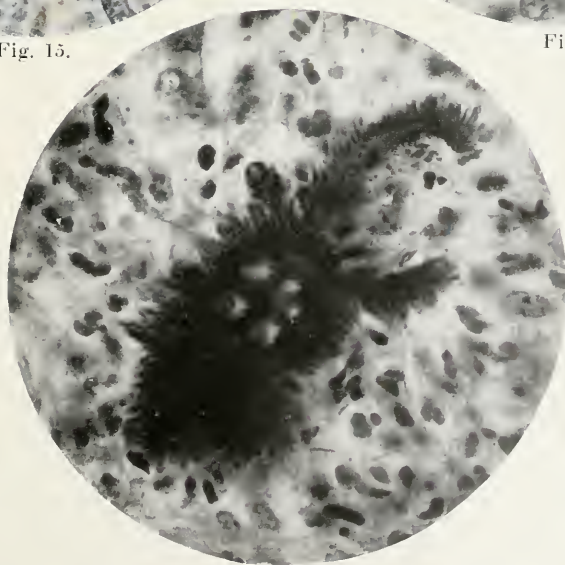


Fig. 17.

OBSERVATIONS CONCERNING SOME PALMAR ERUPTIONS.

By HENRY W. STELWAGON, M.D., Philadelphia.

Read, by title, at the Fifth International Dermatological Congress, held at Berlin, September 12-17, 1904.

BEFORE so experienced an assembly as this, it is not necessary for me to state that I have no intention of considering in extenso the minute details of the various eruptions of the palms encountered from time to time. I shall confine myself to a brief consideration of those cases that may be placed under eczema, eczema seborrhoicum, and syphilis, and, moreover, in these, for the most part, the photographs that I have the honor of showing you can very well fill in the clinical description. The cases, too, that I have particularly in view, in these remarks, are those in which the eruption is essentially chronic, of dry, scaly character, and wholly or practically limited to the palms or palmar aspects of the hands. Moreover, cases in which the factor of occupation is influential are not here referred to, but rather those cases in which the eruption seems wholly independent of recognizable external agency. These cases have, in my experience, certain predisposing factors in common:

(1) They are rarely seen in those under the age of twenty-five, and seldom under thirty.

(2) They are much more frequently observed in those whose circulatory system is much weakened, especially those in whom this weakness is due to heart trouble itself, or to weakness or disease of this organ attributable to or secondary to renal disorders.

(3) They are more commonly observed in those slightly or markedly anæmic.

(4) They are usually seen in those whose opportunities for outdoor life, plenty of fresh air and sunshine are lacking—in short, in those whose business or engagements keep them indoors.

(5) Females seem much less susceptible than males to chronic palmar affections.

As we all know, the diagnostic difficulties of these cases are often very great. Between the somewhat diffused, slightly thickened, scaly eruption with frequent disposition to crack, significant of an eczema, and that with infiltrated sharply defined marginate, often serpiginous, border of the typical palmar syphilide, there is not much room for error. Cases occur, however, as we know, that approach each other more closely, and in which the differentiation is not always so easy

a matter. I think it may be said that the presence of a distinctly marginate border, especially when at all serpentine or crescentic in outline, is rarely, if ever, seen in eczema. But while this factor is usually potential as regards the differentiation of syphilis and eczema, it is quite a common accompaniment of eczema seborrhoicum. Indeed I have not the least doubt that before the labors of the distinguished Hamburg dermatologist on eczema seborrhoicum became known, that most of the cases of this malady affecting the palms, owing to the often present marginate or crescentic border, were looked upon as examples of syphilis. However much dermatologists may differ as to the microorganism factor so strongly urged by Unna, no one can deny that his investigations and writings have brought distinctly to the fore a clinical entity that had heretofore only been partially and incompletely recognized. In eczema seborrhoicum, however, the character of the morbid process is usually superficial as compared to that of the palmar syphiloderm: the latter showing, as a rule, recognizable infiltration. Unfortunately, in some of the syphilitic cases, the infiltration is so extremely slight as to be of practically no aid in the differentiation. I should say that eczema seborrhoicum of this part shows more variation from month to month than does the palmar syphilide; and its border, in some parts at least, is somewhat lacking in the so sharply marginate character of the syphilide. And further, as Unna and others have pointed out, eczema seborrhoicum of this region is usually secondary to the disease on the scalp, where it is found coexisting; more commonly in this latter region in the type formerly and still described as pityriasis capitis and seborrhœa sicca. Unluckily for the value of this factor a mild or moderate seborrhœic condition of the scalp is so frequent that it loses its significance, in great part at least; and it may also quite often be an associated accidental condition in other cutaneous maladies, among which palmar eczema and palmar syphilis. The presence of eczema seborrhoicum patches on the sternal and interscapular region is, however, of greater diagnostic import. According to my observations, a sharply marginate, crescentic or serpiginous eruption of one palm alone is almost invariably syphilitic. I have not alluded to the potential value of slight or pronounced atrophic or destructive action, for the reason that cases presenting this feature are not those of which I desired to speak, but, as previously stated, only of those of chronic, dry, scaly, non-ulcerative forms, that in some instances strongly simulate eczema and eczema seborrhoicum. These dry, scaly, syphilitic cases quite commonly persist as such; now and then, it is true, at a later

period in these cases, slight superficial ulceration may ensue, the presence of which would be decisive in the diagnostic differentiation. Scarcely perceptible atrophic thinning is, however, sometimes seen, and when present is also diagnostic.

In spite, however, of alleged differential points distinguishing these several eruptions of the palms, one is bound to confess that there are cases now and then encountered in which a positive opinion without continued observation, and in some instances without observing the effects of treatment, is impossible. I have said nothing as to subjective symptoms for the reason that they play a very insignificant rôle in these cases; one could state that the presence of more or less continuous itching would be usually indicative of an eczema, as only rarely is it a decided feature of eczema seborrhoicum, and scarcely ever even an appreciable symptom in the palmar syphilide. Inasmuch as itching is not uncommonly wholly wanting in eczema seborrhoicum, its absence in any case could scarcely count as of any weight in the diagnostic differentiation between this affection and palmar syphilis—the two diseases of these parts that at times present the most confusing resemblance. The acknowledgment, or evidence, of a previous syphilis is naturally of some worth, but the fact is not to be overlooked that patients who have had syphilis are not exempt from eczema and eczema seborrhoicum—a simple fact that is often lost sight of, especially by the general practitioner. On the other hand denial or ignorance of the existence of syphilis should not be allowed too much weight; as we all know that while in some instances such a purposely deceptive statement is made, that in others it may be conscientiously and honestly given, and yet the existing eruption be syphilitic. Those of any experience are now fully aware that there are cases of syphilis in which the late symptoms are the first which the patients have known, and the first for which advice had to be sought.

What is to be said of the outlook for recovery of these several chronic palmar eruptions? I believe that it must be conceded by all that they are among the obstinate that we have to treat, and yet if both physician and patient are persistent and energetic, full recovery can almost always be brought about. To an assembly of this character it would be presumption on my part to describe in detail the various plans used, and I shall, therefore, refer only in a general way to the remedies that I have found most useful. I should say that in the type of eczema of the palms to which this paper refers, that strong salicylic acid ointments (ten to twenty per cent.), mild or moderately strong salicylic acid plaster (five to fifteen per cent.), and *sapo viridis* wash-

ings, or the employment of weak solutions of caustic potash (one to five per cent.), from time to time, together with the necessary interim use of mild unguent, such as diachylon ointment, are those to which I owe the most success in these cases. During the past few years I have added, with remarkable effect in some cases, the use of the Roentgen ray. The cases of eczema seborrhoicum are, to a certain extent, treated in like manner, but in these cases occasional paintings with a strong alcoholic solution of resorcin (ten to fifty per cent.) is sometimes of signal value. The use of sulphur (five to twenty-five per cent.) and chrysarobin (two to ten per cent.) with lard and petrolatum as a base, and in the more irritable cases with Lassar's paste as the base, has been, in some cases, quite a prominent part of the treatment. Sapo viridis washings and applications of caustic potash solutions are of much less use in eczema seborrhoicum than in ordinary eczema, and are always to be used with care, particularly the caustic potash solution. In these cases, too, the Roentgen ray sometimes exerts a curative influence.

The treatment of chronic, dry, scaly, syphilitic palmar eruptions is often disappointing unless one is cognizant of certain facts. Local applications of mercurial and salicylic acid ointments and plasters have some influence, but for the successful management the specific internal constitutional remedy, mercury, must be freely used. I do not know whether the experience of others has been the same as mine, but mine has been, that in some of these cases potassium iodide, even in large doses, is not infrequently without the least effect; further, that mercury by the mouth, even in full dosage, often fails to make an impression. To discard the diagnosis of syphilis in these chronic palmar cases, therefore, because of the failure of these remedies as thus administered, as I doubt not is often done, is merely retiring from a mode of attack which if properly made would end in success. Potassium iodide I have long considered as comparatively inert in a fair proportion of these chronic cases; and if my belief that heart or circulatory weakness is of some determining etiological influence is correct, this drug in large dosage could have a distinctly damaging influence. Of late, therefore, I have, in most cases, entirely and satisfactorily depended upon mercurial treatment. This last should, at least in the obstinate cases, always be given by inunction or hypodermic injection, the former method being that commonly employed in our country. To employ the average quantity of mercurial ointment, however, means in some of these cases failure, as these patients seem especially tolerant of this drug, and some can stand enormous quantities with-

Fig. 1.



Fig. 2.



Fig. 3.



Fig. 4.



Fig. 5.



Fig. 6.



Fig. 7.

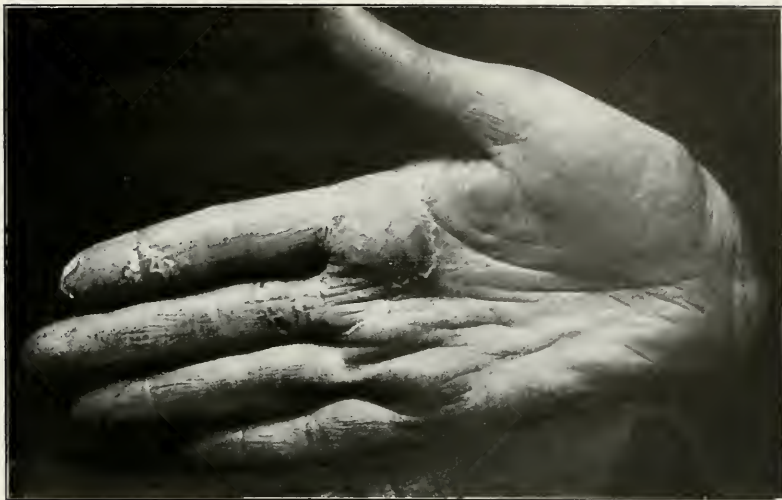


Fig. 8.



Fig. 9.



out showing the slightest tendency to ptyalism; and further, in some of these cases until a large dosage is reached, very little effect is made upon the disease. It is this observation that I wish to emphasize—that while some of these chronic, dry, syphilitic palmar eruptions may show absolutely no improvement under large doses of potassium iodide, or average or even full doses of mercury by the mouth, or by average doses by inunction or hypodermic injection, as soon as mercury is administered in full to enormous doses by inunction or hypodermic injection the effect upon the eruption is usually rapid and complete.

In view of the observation as to the possible etiological influence of circulatory weakness in these chronic palmar eruptions, I have also been in the habit of supplementing the measures already indicated with remedies directed toward improving the circulation, the condition of both the heart and kidneys being given consideration. I believe that such additional treatment to be of benefit, not only in the eczema and eczema seborrhoicum cases, but also in the syphilitic cases in which the influence of this factor might seem more questionable. For evident reasons, too, the liberal use of coffee, tea, and tobacco is to be discouraged. Fresh air, and bodily exercise within reasonable limits, doubtless through their influence on the circulation and the process of metabolism, are factors of therapeutic value, more particularly in eczema and eczema seborrhoicum; a sea voyage, outdoor exercises and enjoyment as with tennis, golf, moderate bicycling and horseback riding are measures that have cured some of my patients when all other plans had not been able to bring about more than variable amelioration.

DESCRIPTION OF PLATES.

Figs. 1 and 2, eczema: Figs. 3, 4 and 5, eczema seborrhoicum; Figs. 6, 7, 8 and 9, syphilis.

POROKERATOSIS (MIBELLI).

By M. L. HEIDINGSFELD, M.D., Cincinnati, Ohio.

Presented to the Fifth International Dermatological Congress at Berlin, September 15, 1904.

IN 1893, Vittorio Mibelli called attention to a form of dermatosis characterized by dry, scaly, hyperkeratotic patches, circumscribed in nature, with a spreading, somewhat elevated, sharply defined border. The lesions began in the form of small, somewhat conical or rounded excrescences, yellowish-brown in color, showing

a tendency to slowly spread at the periphery and to gradually disappear from the centre, leaving this latter area uneven, keratotic and somewhat depressed.

The disease usually began early in life, pursued a very slow and chronic course and was strongly predisposed to affect the hands, fore-arms and arms, and occasionally involved the lower extremities, neck, face, and scalp. In several instances there was a distinct history of heredity. One of these cases has been previously observed and described by Domenico Maiocchi, as a form of *ichthyosis hystrix*, but Mibelli, from careful investigation and study of three cases, together with the casual observation of a few additional ones, concluded that they constituted a separate and distinct type of affection, which he designated by the term of *Porokeratosis*. He endeavored to establish the nosology of the affection upon a firmer basis by means of a careful histological examination, and believed himself successful in demonstrating that in all cases, the chief, primary and essential disturbance was a marked hyperkeratosis of the ducts of the sudoriferous or sebaceous glands.

Simultaneously, Respighi published a careful clinical and pathologic report of seven cases, under the name of "*hyperkeratosis eccentrica*," which Mibelli promptly recognized as belonging to the type of affection described by him under the name of *porokeratosis*. Mibelli and Respighi have adduced confirmation of their original investigation by the study and report of some subsequent cases, and the former by a comparative study of the various keratoses, resulting from such allied conditions as *lichen ruber planus*, *ichthyosis*, *lichen ruber pilaris*, etc.

A host of investigators have subsequently interested themselves in the study and report of similar cases, the vast majority of whom have reported that this disease is a separate, well defined and characteristic form of affection. Foremost of those who have reported confirmatory cases have been Hutchins,¹⁴ Gilchrist¹¹ and Wende²³ of this country, together with Joseph,¹⁵ Basch,⁴ Heller,¹³ Wolff,²⁴ Reisner,²⁰ Harttung,¹² Apolant,¹ DuCastel and Lenglet,⁶ Ducrey and Respighi,⁸ Galloway,¹⁰ and others.

The following characteristics are common to most of the cases thus far reported. The affection begins early in life as small circumscribed keratotic elevations, which soon show a distinct, slightly elevated border. The central area becomes somewhat depressed, and covered either with small rounded excrescences, or funnel-shaped depressions. The color is variously described as purplish, yellowish-

white, dirty yellow or white, and the elevated spreading border, usually presents a slight depression at its crest, enclosing at times a second linear elevation.

The affection is exceedingly obstinate and refractory, and rarely regresses spontaneously or is favorably influenced by treatment. The male sex and exposed surfaces are predisposed, dorsum of the hands in particular, extremities, face and neck, in the order named. There are sufficient discrepancies, however, in the cases so far reported, relative to these and a few other clinical manifestations, to render it questionable whether they can be dignified by the clinical and histological evidence thus far adduced to constitute a separate type of dermatosis, or whether they are merely symptoms of some other affection. For instance, many of the cases begin at puberty, or late in life (Heller,¹³ Harttung,¹² Wolff,²⁴ and others): in the latter case the disease is imperfectly presented or scarcely perceptible. In some the enclosed hairs are present: in some absent, and the folds and furrows are at times preserved, at times obliterated. Some of the cases persist indefinitely and progressively increase in size and are not influenced by treatment, others are favorably influenced (Teller¹³), or regress spontaneously in winter and recur in summer (Wolff²⁴): some cases show mucous membrane involvement, Ducrey and Respighi⁸ (4 cases), Baseli³ and others. Some attribute a parasitic or bacillary nature to the affection (Respighi⁸), others (Wende²⁸) are inclined to discredit an infective nature in the process, based not only on observation but also on inoculation experiments, and others again are strongly inclined to an hereditary theory (Gilchrist) for its causation. The elementary lesions are described in three forms, rounded elevations, filiform projections, and funnel-like depressions.

In short, the clinical date on which the diagnosis is thus far based is of such uncertain and variable character that histological evidence of a more definite and tangible nature seems necessary to firmly establish the affection on a definite basis.

Mibelli,¹⁷ in his original report recognized the full significance of this essential by stating that "Positively no one has thus far called attention to the great histological importance of the observation that the sweat glands may show a hyperkeratotic involvement: this very feature seems to me to be the true histo-pathological basis of the individual lesions, and the fundamental reason for the clinical character of the affection."

J. R. S., aged 26 years, newspaper reporter, has had a cutaneous

eruption on the left leg of eight years' duration (Fig. 1). It began in the form of a few isolated lesions, closely grouped together, covering originally a relatively small area, and has gradually extended peripherally in all directions until at the date of the patient's last visit, June 26, 1904, it covered an irregular quadrilateral area, on the outer aspect of the lower third of the left leg, measuring four inches in its transverse diameter at the base, three inches at the apex, and two and one-half inches in its longitudinal direction. The lesions have remained limited to this locality, and have shown no tendency to progress during the past five or six years; and once present, to constantly persist, and to remain entirely uninfluenced by treatment and attention. The subjective symptoms have been relatively slight, and characterized by a rather mild degree of itching, which has been more marked in summer, and particularly during the extremely hot weather. There has been associated, at intervals, an uncomfortable sensation which the patient describes as creepy and chilly in character, and likewise limited to the affected area.

On examination the affected area presented a pinkish-white color, somewhat sclerotic, and studded irregularly with numerous small, rounded keratotic elevations, of the form, but somewhat larger than pinheads. Some of the spheroidal elevations showed a very slight degree of indentation, and all preserved a uniformly well rounded base. A characteristic, elevated, spreading border, with depressed crest was absent; the hairs for the most part, and the folds and furrows of the skin were preserved. My first impression induced me to diagnose an unusual form of chronic papular dermatitis, lichen chronica circumscripta. After an interval of several months during which the condition remained uninfluenced by careful and painstaking treatment, it was deemed advisable to excise a small area for microscopical examination. On November 6, 1902, a small area was removed by means of a scalpel down to the subcutaneous layer of fat, and hardened in alcohol, cut in successive serials, and stained after the usual methods.

The microscopical examination revealed a mild superficial hyperkeratosis, strongly accentuated in the ducts of many of the sudoriferous glands, distending the lumen excessively and filling the same with a large compact horny plug (Figs. 2 and 3). Hyperkeratosis also extended into the openings of some of the hair follicles, and often enveloped the hairs for a considerable distance into the pars reticularis. The arrectores pili were greatly hypertrophied, and the sudoriferous glands normally preserved, showing no appreciable

endothelial proliferation and only moderate cystic dilatation. Elastic fibers were abundantly present and normally preserved, and the moderate inflammatory reaction was limited for the most part to the small circumscribed areas of the *pars papillaris*.

The plugging of the ducts of the sudoriferous glands prompted the diagnosis of porokeratosis, and the close analogy, clinical and histological, with cases thus far reported, as well as personal observation of one of Max Joseph's cases, confirmed the opinion that the diagnosis was well taken. The plugging of the sudoriferous glands, as revealed by histological examinations, also explained why the patient experienced more distress in summer, and particularly during the extremely hot weather, by the fact that the elimination of sweat, which is more abundant under these conditions was in a measure retarded. The chilly and creepy sensations which the patient experienced account for the hypertrophy of the *arrectores pili* inducing a *cutis anserina*, and a consequent hypertrophy of these muscles from over use.

It now remains to be determined whether these clinical and histological evidences constituted a type *sui generis*, or whether they obtained in other conditions; and for this purpose a comparative study of the ducts of the sudoriferous glands was made in a series of selected cases. In *pityriasis rubra pilaris* (Fig. 4), from specimens taken from two well-defined cases, a similar keratosis of the ducts was found, although relatively fewer were involved, and the keratosis of the hair follicles was relatively more marked and extensive in character. The same condition obtained in a number of well-defined cases of *prurigo*; most of the sweat ducts were very patulous with funnel-shaped openings; a few, however, contained the same horny plugs, and the inference was drawn that all ducts at one time or another contained the characteristic plugs, but as a result of scratching were ultimately dislodged by the finger nails. In cases of well-marked *ichthyosis hystrix*, the excessive hyperkeratosis completely filled and distended every available crypt, duct, hair follicle and undulating fold. In several cases of *clavus* the excessive material extensively invaded the sweat ducts and distended the orifices throughout their greater extent in the superficial layers of the epidermis. Plugging of the orifice of the sweat ducts was fairly well marked in a case of linear *nævus*, in which the chief pathological change was an extensive hyperkeratosis in the form of masses of successive layers of imperfectly keratinized *stratum corneum*. Finally, very complete and extensive infiltration of the ducts of the

sudoriferous glands with keratotic material, quite as typical and well marked in a case of linear nævus, in which the chief pathological case of dermatitis herpetiformis (Dubring), Fig. 6, and in two chronic persistent cases of generalized papular dermatitis.

It is therefore apparent that a histological porokeratosis is present in a relatively large class of affections, particularly those chronic forms of low grade inflammation which are accompanied by a mild degree of hyperkeratosis. Neumann¹⁹ reported, as early as 1875, that he observed the condition in a case which he called dermatitis herpetiformis circumscripta, and was struck with its unusual appearance. He has since acknowledged that the case possessed nothing clinically in common with porokeratosis (Mibelli). Tommasoli,²² in his polemic directed against the recognition of porokeratosis as a distinct and separate type of dermatological affection, states that the term porokeratosis is quite superfluous "inasmuch as there are various forms of keratodermatides which are attended by marked keratotic changes in the glandular follicles, particularly those of the sudoriferous glands, which even if relatively less marked than in cases of porokeratosis is attributable to their relatively shorter duration." Mibelli,¹⁸ in refutation, maintains that though this feature is a diagnostic *sine qua non*, its presence in pityriasis rubra pilaris, lichen pilaris, psorospermosis, etc., is merely an associated incident and not a preponderating cause.

If the keratotic plugging of the sweat ducts is not the distinguishing characteristic of this affection, there is little else of a histological nature as gleaned from the investigations of Mibelli,¹⁷ Respighi,²¹ Joseph,¹⁷ Ducrey and Respighi,⁸ Wende,²³ and others which imparts individuality to the affection. The clinical features are of such wide range and varied character that they, in themselves, are in most instances insufficient for a diagnosis. The photo-engravures of the characteristic double border has often a decided artificial appearance, and is at times delineated white (Respighi²¹), at times an intense black (Wende²³). Gilchrist,¹¹ in his report of eleven cases, states that the disease was recognized "only after a number of microscopical examinations were made." Hallopeau and Barthélemy were both struck with the great analogy of DuCastel and Langlet's case with lichen planus, and Darier maintained that the histological distinctions between the two affections were not sufficient for a differential diagnosis. Some of the lesions of Harttung's¹² case bore a mistakable resemblance to lichen ruber verrucosus. Fox and Fordyce⁹ report a case under the name of a "rare form of papular



Fig. 1.



Fig. 2.



Fig. 3.

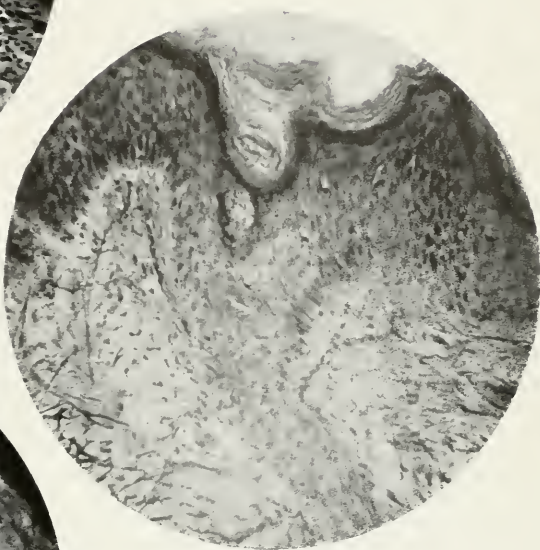


Fig. 4.

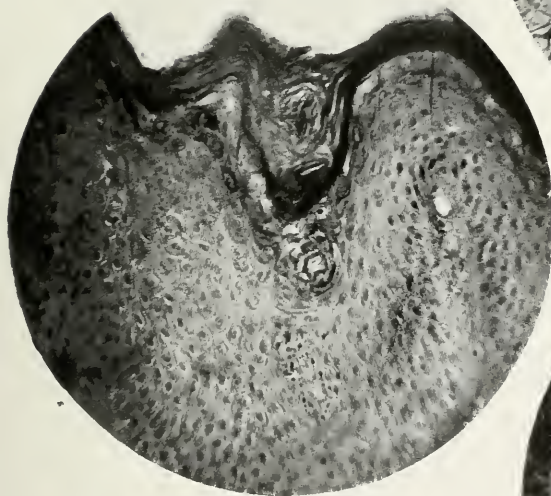


Fig. 5.

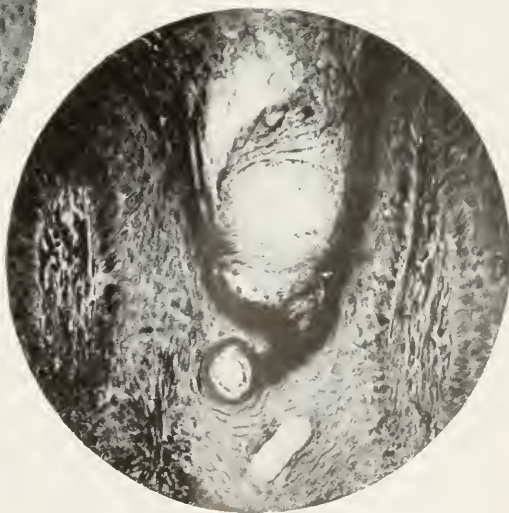


Fig. 6.

disease" which is histologically a porokeratosis. In the case here-with presented, the diagnosis of an unusual papular dermatitis, lichen chronica circumscripta, was entertained until after the histological examination, which revealed it to be, according to the dictum of Mibelli, from the preponderating keratosis of the sweat ducts, a porokeratosis.

In conclusion, it is evident that the clinical and histological features of this affection are not sufficiently well defined to permit a facile and unmistakable identification of many of these cases. Either the lines which separate this type of affection from types in general must be more sharply drawn or entirely obliterated in order to prevent an unnecessary degree of confusion. The barriers which for a time maintained a successful clinical and histological isolation for this affection, have been in a measure impaired or destroyed and require a considerable degree of reconstruction to insure their future preservation. Their weakness was early recognized by Tommasoli and Barent.

Barent, as early as 1895, stated: "There is no objection to drawing attention to the clinical appearances of this form of keratosis, but there is surely no reason to connote it by a special epithet, seeing that the pathology of this affection is a keratosis pure and simple. The less we have in double-barrel names in dermatology the better." From the present state of knowledge I concur with Fox and Fordyce in attributing to porokeratosis symptomatic rather than diagnostic or type value.

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EDITORIAL.

THE MELANOMA QUESTION.

UNNA'S theory of the origin of the soft nævus (mother mole) from surface epithelium by a metaplastic change in the rete cells and their gradual descent into the cutis in intrauterine or early life has been gradually gaining supporters since its first promulgation in 1893. These adherents to his views hail from many lands, and are both general histopathologists and those whose special work lies in the skin. The older view, of a genesis from lymphatic endothelium, is maintained with some heat chiefly by German general pathologists. In the monograph, the first installment of which appears in this issue, the author joins forces with the latter school and offers some data illustrated as to crucial points by photographs, tending to show that nævus cells are endothelial, and that the malignant growth called by Unna "melanocarcinoma," being a derivative of the soft mole, is also of endothelial origin. The main point in his argument, following Hanseemann, is a demonstration of a continuity of structure between groups of nævus cells and the superficial plexus of lymphatic vessels in the skin. He maintains that this demonstration should be convincing when it can be made, but adds some corroborative testimony from the histology of the mole.

Passing from the question of histogenesis of moles, the history and histology of nine cases of malignant melanotic tumor are given, which are classed under one head, Melanoendothelioma, and further subdivided into Nævomelanoma, Melanotic Whitlow of Hutchinson, and Malignant Lentigo of the French. Although the tissue origin is the same for them all, from lymphatic endothelium, the latter two, which are often neglected in literature, begin like choroid melanoma without the interposition of any nævoid structure. They have one clinical feature in common which does not occur in nævomelanoma, pigmented lines running irregularly from the original neoplasm and called "nitrate of silver streaks." All three are equally malignant.

Melanotic onychia begins always in one nail fold; malignant lentigo on the extremities, generally in old men.

Differing radically from the Unna school in his interpretation of nævus structure, Johnston calls attention to certain cutaneous melanotic tumors which are known to possess only local malignancy like rodent ulcer, and describes three cases which are epitheliomata of well recognized varieties with an added pigmentation varying greatly in amount. Similar cases have been reported in support of Unna's contention in regard to nævus but in reality they have no bearing on the controversy since no trace of mole tumor can be found in them, and Unna himself denies their existence. Owing to the melanosis, diagnosis of melanoepithelioma is possible only by the microscope.

Lastly, several cases are offered in proof of the statement that early and radical excision offers some hope of cure even in the most malignant of melanoendotheliomata.

REVIEW of DERMATOLOGY AND SYPHILIS

Under the Charge of JOHN T. BOWEN, M.D.

BACTERIOLOGY AND PARASITOLOGY.

By A. D. MEWBORN, M.D., New York.

Uncinariasis in the South with Special Reference to Mode of Infection. CLAUDE H. SMITH, M.D. (*Jour. Amer. Med. Ass'n*, 1904, p. 592.)

According to the author the disease is not contracted from dirt eating, which in most cases is simply a symptom of the perverted appetite, but the parasite usually gains entrance through the skin, where the uncinaria produce lesions commonly called "ground itch."

After a consideration of the facts that the parasite is practically confined to the human family; that when matured it is located in the small intestines; that the eggs are discharged from the body in great quantities with the feces, and that these eggs hatch when mixed with damp soil, he naturally deduces that if they do gain access to the body by way of the skin this must take place during warm rainy weather or in places where the ground is constantly moist. The cases of ground itch always occur as a result of wading about barefoot in the mud and especially if it has been raining for more than a day previously.

The first symptoms of true ground itch is an itching, usually between the toes, and this becomes more and more intense until it is exasperating.

Children often cry all night during an attack. The itching begins immediately after wading in the mud, and small hyperæmic spots or macules are noticed at the points of irritation between the toes and these macules appear to be slightly elevated, but hardly reach the distinction of papules. Vesicles form which may become confluent as large blisters. The vesicles are usually ruptured presenting a raw oozing surface with considerable underlying swelling. This condition may last only a couple of weeks, or it may last several weeks; it may involve only a small area, or it may cover both feet, and the patient be unable to walk about for the time being.

To demonstrate experimentally this mode of infection, the author took soil containing larvæ of *uncinaria* four days old which was moistened and bound on the wrist of a patient free of the disease with a gauze bandage. Within eight minutes there was a decided stinging sensation as if produced by needles. On removing the soil, macules were noticed which later developed into papules and vesicles. For the first five nights itching was present. The lesions cleared up on the twelfth day. The stools of the patient were examined daily without finding eggs of *uncinaria* until the middle of the seventh week. This was in April and the patient was still passing eggs in the stools in June. In another case the infected soil was applied to a prepuce which was subsequently excised and sections made, but without finding the migrating larvæ. This successful attempt to produce the disease with the *Uncinaria americana* corroborates the work of Loos and the author's previous views as to the mode of infection of the disease.

Uncinariasis in Porto Rico. Notes and Observations on. B. K. ASHFORD, and W. W. KING. (*New Orleans Med. and Surg. Jour.*, March and April, 1904.)

The authors, in a very full and interesting description of the disease as found in Porto Rico, speak of the characteristic dirty, pasty, grayish-yellow color of the skin in brunette, and deadlly white color in blonde victims of the disease. It is not waxy as in renal disease, nor of the transparent whiteness of tuberculosis. This pallor with the peculiarly indifferent, yet hopeless expression, is very impressive. In their opinion also, the itching, pustular eruption or "*pani-ghao*" found on the legs seem to confirm the proofs offered by Loos and Bentley of the ability of the worm to enter the system through mud-stained legs. They found it extremely difficult, however, to obtain a clear history of this antecedent eruption in their cases and consider that care must be taken to differentiate these anæmic ulcers from those due to syphilis and other causes.

Statistics of Cases Treated in the Dermatological Clinic of the Royal Japanese University of Tokio (1899-1902). K. DOI and S. KURITA. (*Jap. Zeit. f. Derm. u. Urol.*, 1903, p. 15.)

Lupus vulgaris and other forms of cutaneous tuberculosis are rare.

Only 36 cases of psoriasis out of a total of 5,985 cases. Eczema constituted about 28 per cent and lepra 9.16 per cent of the cases. Alopecia areata was almost endemic (6.2 per cent). Trichophytosis in the form of eczema marginata was quite common (3.17 per cent). The common forms of trichophytosis of the scalp were relatively rare, but the authors describe a common form of hyphomycotic affection of the scalp and face of children which clinically and bacteriologically seems to merit a distinct position as "pityriasis mycetica."

Desinfectol in the Treatment of Scabies. K. AZUMA. (*Japanische Zeit, f. Derm. u. Urologie.* 1903, p. 14.)

Desinfectol (Disinfectol) is a by-product in the fabrication of camphor which has been recommended by Prof. Shimoyama of Tokio as of value in the treatment of skin diseases caused by animal and vegetable parasites. In a fifty per cent. watery solution, painted on the affected parts, it is said to cure scabies in forty-eight hours. The only disadvantage in its use is the fact that the remedy is not a chemically pure product and the proportions of camphorterpen, naphthalin, thymol, saffrol, kresol, resin, etc., vary. Perhaps owing to this varying proportion an eczema is sometimes produced.

Favus in Mother and Infant. G. W. CARY, M.D. (*Bulletin of Lying-In Hosp., Vol. 1, No. 1, p. 26.*)

The case of infant favus is interesting on account of the extreme youth of the patient (14 days), and on account of the herpetic or vesicular appearance of the lesions on the face when first seen ("herpetisches vorstadium" of Köbner). The mother, a native of Ireland, aged 28, was suffering from favus of the scalp of long standing and infection of the child probably took place soon after birth, the mother having been confined in the bed usually slept in by her. The infant had typical lesions on the face, scalp and elbow. The diagnosis was confirmed by a microscopical examination of the favus cups taken from both patients.

SYPHILIS OF SKIN AND MUCOUS MEMBRANES.

By WALTER C. KLOTZ, M.D., New York.

Syphilide, Recurring Palmar. GAUCHER AND ROSTAINE (*Bull. d. l. Soc. Fr. d. Derm. et Syph., XV., 1904, No. 3, p. 91.*)

This was a very interesting case of recurring syphilitic lesion in a patient who had contracted syphilis in 1895. After having remained free from syphilitic symptoms for five years, an ulcerating syphilide appeared on the palm of his left hand. This was treated for lupus, without effect; disappeared under anti-syphilitic treatment, to recur again a number of

times whenever the latter was suspended. Entering the service of the authors in February, 1904, he presented a serpigenous ulceration of irregular outline on the hypothenar eminence, two ulcers on the anterior surface of the wrist and an ulcer at the site of the metacarpo-phalangeal articulation. A discussion was held as to whether the character of the lesion might have been determined by the fact that the patient had for some time been living in a tropical climate during his military service following the development of the primary lesion. No positive conclusions were offered.

Gumma of the Urethra and Corpora Cavernosa. GAUCHER AND ROSTAINE (*Bull. de l. Soc. Fr. de Derm. et Syph.*, XV., 1904, No. 2, p. 59).

The patient presenting this unusual lesion was a man twenty-seven years old. In July, 1903, he had noticed a small nodule in the frenum of the prepuce, which ulcerated and within a month involved the urethra, producing an urinary fistula. At the time he was presented to the authors for treatment there was a deep ulcer of the frenum which had destroyed the floor of the urethra, as far as the meatus, and extended on either side of the frenum along the coronal sulcus, almost completely surrounding the glans. This ulceration rested on an infiltrated base. There was no pain, nor glandular enlargement. In addition there were a number of nodules to be felt in the prepuce and the corpora cavernosa. The patient complained of imperfect erections. It was ascertained that he had had a chancre three years before, but he had not suffered from any secondary manifestations. At the time of the presentation of the case, anti-syphilitic treatment had been continued for one month, with the result that the lesion had almost completely healed.

Hereditary Syphilis Retarded and Hereditary Syphilis of the Second Generation. By E. FOURNIER (*Bull. d. la Soc. Franc. de Derm. et Syph.*, XV., 1904, No. 2, p. 62).

In both these cases there was present an extensive serpigenous syphilide, which had existed for years without being recognized, and which disappeared promptly under anti-syphilitic treatment. The first case was that of a man 43 years old in whom the eruption had existed for thirty-four years. No history of acquired syphilis could be obtained, but the patient stated that he was the sole survivor of a large family, that he had been delicate as a child, and had suffered from convulsions and diseases of the eye during infancy. Examination disclosed stigmata of hereditary syphilis (chronic atrophic retinitis, condition of the teeth).

The second case was that of a man twenty-four years old in whom the eruption had existed for five years. He was an intelligent man, denied acquired syphilis, but gave a family history pointing toward heredi-

tary syphilis. He presented numerous stigmata of degeneration (changes in the fundus of the eye, condition of teeth, phimosis, ichthyosis). The father of the patient was questioned. He denied absolutely having acquired syphilis. He himself was delicate and gave a history of having been delicate as a child, and also bore evidences of hereditary syphilis. It was ascertained, moreover, that his mother (the grandmother of the present patient) was infected after the birth of her second child by nursing a strange infant, which had died a short time after, and that subsequently she had developed an eruption, as had also her own child. In a discussion of these two cases Hallopeau remarked that further study would show that there were certain characteristics of syphilis of the second generation which would enable it to be recognized even where there was not such a completely connected history as in the present instance.

Coincident Chancre of Genitals and Lip. M. QUEYRAT (*Bull. d. l. Soc. Fr. de Derm. et Syph.*, XV., 1904, No. 1).

The author's case was a man nineteen years old, a glass-blower by occupation. He first noticed a chancre in the coronal sulcus. Fifteen days later, a second chancre developed on the lower lip, followed by a general secondary eruption. The author brings up the question as to whether the second chancre was the result of a successive inoculation, or whether the appearance of the labial chancre some time after the genital chancre was simply due to a longer period of incubation. He is inclined toward the latter theory, as it has been experimentally shown by Metchnikoff that immunization is established very rapidly. He also lays stress on the danger of transmission of the disease through the patient's occupation, it being the custom to hand the blowpipe from workman to workman in the process of manufacturing blown glass. In discussing this case Barthélemy suggests the possibility of an existing simple lesion of the lip having been inoculated by the patient himself. Jullien considered it a case of "chancre successive" due to two successive inoculations, the second produced at a time when immunity had not been conferred upon the organism by the inoculation of the first ulcer.

Syphilitic Alopecia, Recurrent. M. ALEX RENAULT (*Bull. d. l. Soc. Fr. d. Derm. et Syph.*, XVI., 1904, No. 3, p. 86).

The patient presented by the author had contracted syphilis in 1900, and the secondary manifestations were mild in character. A diffuse alopecia occurred in the fourth month of the disease. Treatment was continued at regular intervals for three years. No further syphilitic manifestations were noticed until three and one half years after infection, when a bald spot appeared on the postero-inferior aspect of the hairy scalp, to the left of the median line. Not being recognized at the time, applications of iodoform and acetic acid were made. Within ten days the entire hairy

scalp was involved. The head presented a number of bald areas, varying in size and irregular in outline. The author based his diagnosis on the multiplicity of the zones of denudation, the size and irregularity of outline of the bald areas, and the fact that the spots were not entirely bare, and that at the edges of the patches there was a diffuse alopecia. The patient also presented on the trunk an eruption which the author considered pityriasis rosea of Gibert. In a discussion of the case, Du Castel accepted the diagnosis of syphilitic alopecia and was of the opinion that the eruption on the trunk was also syphilitic. Hallopeau was inclined to believe that the eruption was a chronic urticaria. Fournier also considered the alopecia syphilitic, and regarded it as a retarded secondary manifestation.

Gumma of the Tongue. GAUCHER AND ROSTAINE (*Bull. d. l. Soc. Fr. de Derm. et Syph.*, XV., 1904, No. 3, p. 94).

The patient had contracted syphilis in 1889, but was treated for one month only. No manifestations occurred till 1900, when he developed a gumma of the left leg, for which he was treated three and one-half months. In March, 1904, there appeared a small tumor on the left side of the tongue, about the size of a pea. It was hard and painless, caused no inconvenience, increasing until it was about as large as a filbert. It was smooth in outline, non-ulcerated and covered by normal mucous membrane. There was no glandular enlargement. The case is of interest on account of the mild course of the disease in spite of the lack of treatment, and the fact that the tumor was so sharply circumscribed.

Multiple Syphilitic Chancres. M. DANLOS (*Bull. d. l. Soc. Fr. d. Derm. et Syph.*, XV., 1904, No. 3, p. 90).

The case described by the author was remarkable for the reason that there were present seven distinct and typical chancres. Five of these were located on the penis, one on the lower lip, and one on the under surface of the tongue. Four chancres of the penis and the one on the tongue appeared at the same time; the two others developed twelve days later and were smaller in size. It is interesting to note that in spite of the multiple points of entrance of infection, the patient did not suffer from general disturbances during the time preceding the secondary eruption, nor was the latter very marked.

Syphilide of the Palm, Pustular. DOMAN. (*Bull. de la Soc. Fr. de Derm. et Syph.*, XV., 1904, p. 188.)

This case, which was characterized by the tenacity and at the same time superficiality of the lesion, occurred in a prostitute who had been infected five years before. For three years, she had suffered with a papulo-squamous lesion of the right hand which had begun in the space between the middle and index fingers, and had extended over the entire

palm. Its progress was serpigenous and eccentric, the center healing, while the periphery continued to advance. A similar lesion had existed for a long time between the thumb and index finger. While it readily and quickly responded to mercury, the lesion always recurred at the same site, and always presented the same form, without ever showing any tendency to invade the deeper layers of the skin or becoming ulcerated. The general condition of the patient was good and there was no history of any irritation at the site of the lesion that could have predisposed to, or excited this condition.

Syphilide, General Pigmented. DANLOS. (*Bull. de la Soc. Fr. de Derm. et Syph.*, XV., 1904, p. 141.)

The case presented by the author is of interest on account of the general distribution of a pigmented syphilide, and because of its occurrence in a male subject. The eruption was not limited to the lateral and posterior portions of the neck, as is usually the case, but was present over the sides of the trunk, the hypogastrium, and the adjacent surfaces of the buttocks. The patient had never suffered from any previous eruption, except a slight roseola.

Syphilitic Lesion, Primary, of the Bulbar Conjunctiva. GUTZEIT. (*Archiv. f. Derm. u. Syph.*, Vol. LXIX., 1904, p. 349.)

The article by Gutzeit is a valuable contribution to the literature of extra-genital chanere. It contains a careful review of twenty-one cases previously reported, in which the primary lesion occurred in this unusual situation. The lesion in each one of these cases has been described for the sake of comparison. The author's case was that of a boy, nineteen years old, who was admitted to the hospital on Oct. 18, 1902. There was a history of previous slight injury of the respective eye, about two months before admission. There is no positive history of infection. Two weeks before admission a slight discoloration was noticed on the bulbar conjunctiva of the left eye, below the cornea. The conjunctiva became markedly injected and swollen and a whitish ulcer developed at the site of the original discoloration.

The pre-auricular and sub-maxillary glands became enlarged and on November 9, of the same year, a general macular eruption appeared. All symptoms disappeared under inunctions and potassium iodide, and on subsequent examination in June, 1903, the lesion of the eye had almost entirely resolved, except for a slight discoloration.

The author has been careful to exclude secondary papule or gunma, and, as the case occurred in a rather ignorant, rural community, whose inhabitants are ignorant of all hygienic laws, infection is very possible, and the authors are therefore probably correct.

Syphilide of the Scalp, The Crusted. UMBERT. (*Ann. de Derm. et Syph.* V., 1904, p. 310.)

The author has presented a very interesting clinical and histological

study of the scaling papule of the scalp. His observations were carried out on six cases, the histories of which are included in his article. From these it would appear that, the crusted syphilide of the scalp coexists with a general papular or papulo-squamous eruption, that the lesions vary in number, and are equally distributed over all portions of the scalp. The author describes the individual lesion as a brownish crust traversed by numerous hairs. The crust can be removed in one piece, leaving a smooth, moist, or slightly granular surface, on an infiltrated base, the secretion being neither purulent nor sanguineous.

On microscopic examination he found the lesion to consist of a crust and a typical syphilitic infiltration of the papillary and sub-papillary layer, accompanied by thinning of the rete Malpighi and several forms of degeneration. Under high power the sections showed the presence of numerous bacteria.

The author considers it a true syphilitic lesion, but believes that it is determined by secondary infection.

SYPHILIS OF THE NERVOUS SYSTEM.

By J. M. WINFIELD, M.D., Brooklyn.

Syphilis and Psychopathia. M. GALIANA (*Révue de Psychiatrie*, Vol. XI., No. 6).

The author considers syphilis in its relation to psychoses from three points of view. 1, Syphilis as a common cause; 2, Syphilitic psychoses properly speaking; 3, Syphilis in general paralysis. He claims that syphilitic subjects may manifest various psychoses without these bearing any relation whatever to the specific disease. In other words, subjects free from syphilis may have these nervous phenomena. Certain psychopathic tendencies may develop in the degenerate in the early part of the second stage. Mental troubles thus awakened often remain permanent. The syphilitic infection seems to act only as a common exciting cause, and is as apt to bring about other nervous disturbances as it is to produce delirium. Insanities are directly caused by syphilitic infection of the brain, the manifestations are either demential, delirious, or motor. The latter have no direct bearing on the psychic condition, but are of great diagnostic value. The motor symptoms are in order of frequency as follows: Ordinary hemiplegia, paralysis of the external oculo-motor, and pathetic nerves, monoplegias and association paralysis. The motor troubles may be manifested by convulsions of an epileptic character.

A case is cited of syphilitic epilepsy where the mental functions were intact.

Diffuse motor disturbances, if combined with syphilitic dementia, with or without delirium, may so mask the syphilitic affection that it is often mistaken for general paralysis. The evolution of syphilitic dementia

accompanied by delirious or motor symptoms is either slow and progressive or rapid; if its course is interrupted this condition may persist in a mild form for many years. When rapid it indicates that the patient was not subjected to specific treatment. It is generally believed that many general paralytics have syphilitic parents.

The writer doubts the direct relation between syphilis and general paralysis, because he has seen a great number of these paralytics who were not syphilitics, although the prevalence of syphilitic antecedents among the general paralytics points to the fact that syphilis has some relation to the disease.

He also disagrees with the views of some that the general paralytic has not received proper anti-syphilitic treatment and thinks that this form of treatment during the course of general paralysis is harmful, for in his experience some cases have been rendered worse thereby, both mentally and physically.

Syphilitic Convulsions, A Case of, Preceded by Marked Somnolence of Long Duration. WILLIAM B. BENNETT (*Brit. Med. Jour.*, March 12, 1904).

Patient was a married man aged thirty-four, had always been healthy and never had had any serious illness. Eight years ago he had a chancre, which was treated for one month, and as there were no secondaries he considered further treatment unnecessary. Five months before the convulsions began he felt drowsy at all times, would sleep from seven o'clock in the evening until eight in the morning, would fall asleep again on his way to business, and often be found fast asleep in his office. He had no pain or any discomfort except the feeling of uncontrollable drowsiness, and his disposition and behavior were unaltered.

His epileptic convulsions began April 26th, 1902. He was roused at seven o'clock and at eight came down to breakfast and was unable to speak although he made great effort to do so; he also ate with great difficulty; he returned to bed and an hour later was found in a comatose condition; the convulsions seemed to be of an ordinary epileptiform character except that they started on the right side; between the fits he would get up and walk about the room; this condition continued for about three weeks when under proper remedies he improved so that early in June he was able to return to business.

The diagnosis was founded upon the fact of the rapid recovery under anti-syphilitic remedies. The author is inclined to think that the cerebral lesion in this case was an extensive syphilitic endarteritis with possible spasm of the cerebral arteries.

The interesting features of the case were the preceding somnolence, absence of headache and hemiplegia, and the, apparently, complete recovery.

Intracranial Syphilis (A Diagnostic Syndrome for) with Remarks Upon Prognosis and Treatment. By WILLIAM B. PRITCHARD, M.D. (*Med. Record*, May 14, 1904).

The author states that after a number of years of experience and tests in many hundreds of cases he has learned to rely upon the following syndrome:

"Given a patient between the ages of twenty-five and forty-five, affected with any form of intracranial paralysis, which was preceded by headaches of nocturnal onset or exacerbation associated with vertigo and insomnia, the insomnia occurring during the first half of the night, the paralysis developing during sleep, both headache and insomnia disappearing upon the onset of the paralysis, the cause is syphilis."

In elaborating this formula he says, that the age limit (from twenty-five to forty-five) should not be too strictly adhered to, for subjects may be attacked earlier or later in life. The youngest in his observations was twenty-two and the oldest seventy-two. The average of a hundred and sixty-two carefully observed cases was thirty-two years.

The headaches vary widely and are not of great diagnostic importance, except when they are nocturnal and persistent. Vertigo is of significance only when it is associated with the headaches.

Some disturbance of sleep is almost constant in the developmental period of intracranial syphilis. Insomnia is the rule under fifty, and somnolence in those over fifty years of age. The author's observations have led him to think that most of the syphilitic paralyses develop during the night. He contends that if the early symptoms taken with other significant signs such as fugitive palsies, etc., are observed early and carefully enough, much can be done in the way of treatment to forestall the fatal explosive accident.

In treatment, only two drugs are of any positive, constant, curative service, viz.: potassium iodide and mercury; preference being given to the iodides.

Para-Syphilitic Disorders. ARCHIBALD CHURCH, M.D. (*Chicago Med. Record*, May 15th. 1904).

The author states that the para-syphilitic disorders are not marked by any of the active lesions of syphilis and that they are not amenable, in the ordinary sense, to anti-syphilitic remedies. The essential lesion is degeneration. In seeking for a syphilitic history in cases of tabes and parietic dementia, difficulties naturally present themselves.

In all recent statistics of tabes which have been compiled with a knowledge of the possible syphilitic causation, evidences of syphilis were obtained in from seven to nine out of ten cases. In a recent compilation of 1,100 cases of tabes, Erb found syphilis present in something over ninety per cent. The symptoms of tabes and parietic dementia appear in the

majority of cases from ten to fifteen years after the initial sore, and the so-called mild cases of syphilis or those cases which are never recognized seem to preponderate in the histories of para-syphilitic disorders. Instances are on record in which a number of individuals syphilised from the same source have developed tabes and parietic dementia, and sometimes a tabetic parent gives issue to offspring who show juvenile or parietic dementia. All cases of early parietic dementia and juvenile tabes are based upon syphilitic parentage.

The question of sex, race and occupation is of interest. There is about one case of female tabes and female parietic to ten or twelve male. The proportion of syphilis between the sexes is the same. The peasant Scot or Irishman is practically free from the para-syphilitic disorders. The German peasant and orthodox Jew are equally free from the same disease. The full-blooded negro is practically immune to tabes and paresis, and it is asserted that there must be an admixture of white blood before he can acquire them.

Among the occupations we find that artists, actors, journalists, soldiers, sailors, and physicians are very subject to syphilis and the para-syphilitic disorders, while clergymen and country laborers are comparatively free.

Tabes, Anti-Syphilitic Treatment in. By M. FAURE (*Jour. de Med., Bordeaux*, August, 1903).

The reported cure and amelioration of tabes by mercurial treatment has induced M. Faure to investigate the claimed improvement. The important symptoms that have been relieved by mercury are pain and incoördination. Both of these have been helped by other therapeutic measures and pain is often variable and transitory. The author, quoting from figures of some other investigators, states that the percentage of cures is lower in the cases receiving anti-syphilitic treatment than in those treated by other measures, and, also, that the number of cases aggravated by anti-syphilitic treatment is greater than those that are improved.

Tabes, Juvenile. ALFRED GORDON, M.D. (*N. Y. Med. Jour.*, May 7, 1904).

After referring to a case previously shown, the writer reports a case of juvenile tabes in a patient who had had acute infantile poliomyelitis. He concludes as follows: "It shows that hereditary syphilitic tabes and acquired syphilitic tabes have identical symptoms." The histories of the syphilitic infection was not clear in either of the reported cases.

Syphilis as a Cause of the Neuroses. By L. HARRISON METTLER, A.M., M.D. (*Chicago Med. Record*, May 14th, 1904).

After discussing the various neuroses such as epilepsy, neurasthenia, etc., observed in syphilitic subjects, the author concludes as follows: First, syphilitic infection can produce a pure neurosis. Most of the neu-

roses so produced, however, are but the preliminary indications of gross organic syphilitic disease of the nervous system.

Second, syphilitic neuroses are as much syphilis of the central nervous system as are the organic syphilitic diseases. They call for the same anti-syphilitic treatment as the latter do.

BOOK REVIEWS.

Syphilis and Gonorrhea. By C. F. MARSHALL, M.D., F.R.C.S. Eng. Rebman Company, London and New York, 1904.

The author's experience as Resident Medical Officer to the London Lock Hospital has given him an ample material for a description of the most varied manifestations of syphilis, but we must admit a rather great disappointment in the amount of space (20 pages) given to the consideration of secondary and tertiary syphilodermata. The points in differential diagnosis are not sufficiently elaborated, no mention is made of lichen planus lesions of the mouth, which Trautmann (*Zur Differentialdiagnose von Dermatosen und Lues*, etc., 1903), has shown are so difficult and so important to differentiate from mucous patches. Almost no attention is paid to leukoplakia and to the cancer which may develop upon it. The pigmentary changes in the skin of the neck receive very slight mention. The chapter on syphilis of the nervous system is far from satisfactory. No mention is made of recent work in the study of the cytology of the cerebro-spinal fluid in syphilis. On the whole, however, the book is well written, clear, concise, balanced. The type is large and the paper light and free from gloss.

A. D. M.

The Treatment of Syphilis. By F. J. LAMBKIN, Lieut.-Col., R.A.M.C. Ballière, Tindall and Cox, London, 1905.

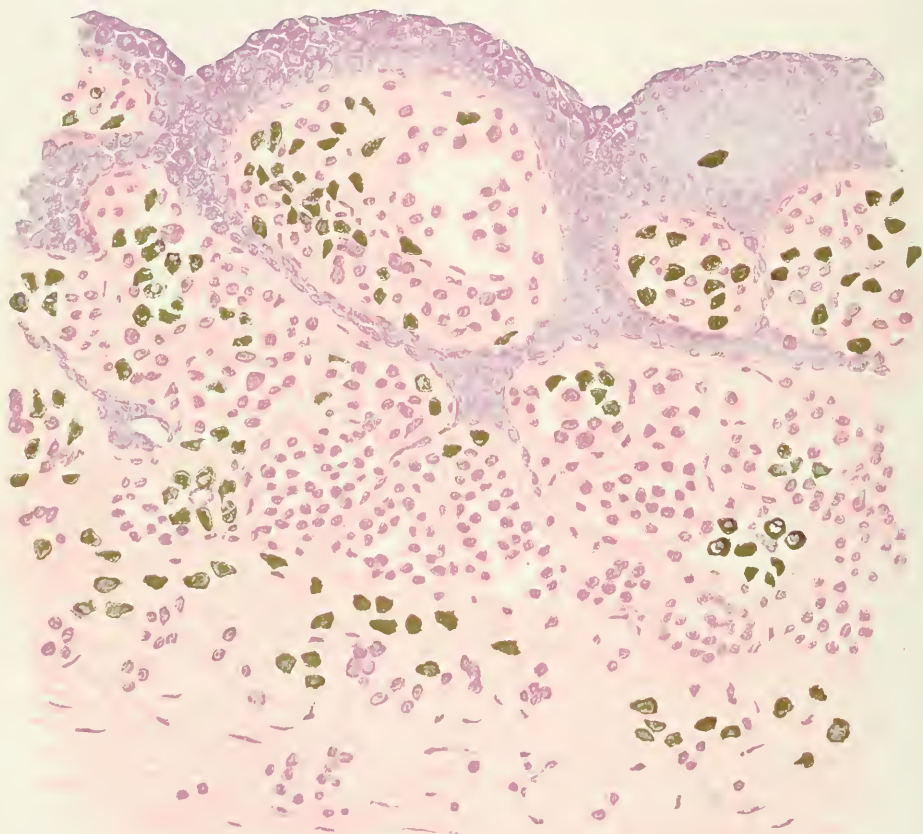
This small manual of sixty pages gives a very conservative résumé of the different methods of treating syphilis. The author prefers the injection treatment to all others and the insoluble preparations to the soluble, his favorite formula is a modification of the original mercurial cream of Lang, which he uses in the following proportions: Hydrarg. 4., Lanolin, anhyd. 16., Ol. carbol. vel parolein, carbol 20. Ten minims of this is given once a week as a maximum dose. His directions as to preparations of this cream, syringe to be used, site of injection, etc., are very explicit. In regard to the use of iodide of potash he says that unless administered in conjunction with, or after, a full mercurial course, it is practically useless in removing symptoms of syphilis. When given, the iodide should not be continued over longer periods than a week, and that between the periods at least a week should intervene. Given thus he claims no other remedy approaches it in value.

A. D. M.

La Pelade. By A. CHATIN and F. TREMOLIERES, *Masson et Cie*, 120 Boulevard St. Germain, Paris.

This little volume of 160 pages is an excellent presentation of the diverse views as to the etiology of alopecia. The adherents of the nervous origin, under the leadership of Jacquet seem to have somewhat the better of the adherents of the parasitic idea, whose brilliant leader Sabouraud has slightly receded from the position formerly held by him as to the rôle of the bacillus of "*seborrhea graisse*." Gaucher occupies a position almost midway in attributing the affection to a microbian cause which produces its effects through a toxine. "The disease is not, without doubt, contagious except during its microbian stage, and the contagion does not take place except where there is a special predisposition, which is always found in a momentary or permanent disequilibrium of the nervous system." As no mention is made of where the microbe is located and how long the contagion may survive the elaboration of its toxine, we are not much advanced in our knowledge of the subject. The treatment is very minutely given, considering the numerous mechanical and physical as well as topical medicaments which have been employed. A full bibliography of the subject completes the volume. A. D. M.

PLATE I.—Illustrating Dr. Johnston's Article on Melanoma.



Melanocanthoma, Metastasis in Skin. Case III.

PLATE II.—Illustrating Dr. Johnston's Article on Melanoma.



Melanocepthelioma. Case XII.

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MELANOMA.

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(From the Pathological Laboratory of Cornell Medical College.)

(Concluded from January, 1905.)

MELANOENDOTHELIOMA.

I. Tumors Arising from Nævi (Nævomelanoma).

IT is not altogether idle to speculate on the development of malignancy in soft moles. There is no question of the part which long continued irritation plays in this connection. Speculation is rather concerned with the exact effect which the irritation produces. Attention has been drawn in the previous section to Ribbert's³⁷ demonstration by injection of the poverty of blood supply in moles. He thinks that an impulse to growth is imparted by increased vascularity, and it seems that a heightened color (bluish-red) is among the first, if not the earliest result of irritation. However, there is general opinion among pathologists that something more is needed to impart proliferative activity to cells than a mere increase in their nourishment. Bauer³² finds it in the presence of pigment and in the imperfect delimitation from the surrounding tissue. There is little possibility of the pigment furnishing the needed stimulus, since it is present in nævi from the beginning. The rôle of the connective tissue is important undoubtedly, at least, in explaining the rapid spread, not only because it imperfectly delimits the tumor cells, but because of its own derangement and partially degenerated condition (see section on Soft Mole). In other words, there is a diminished tissue-tension about the cells, but like the pigment, the condition is always

present and cannot be more than a contributing factor. Unna is inclined to support Ribbert's theory of the supraordinate part played by new connective tissue in snaring off individual cells from the tumor mass. Even if the surmise is correct, there remains to be explained the origin of the new fibers. Since those who favor a parasitic origin for tumors have failed to furnish adequate proof, it is not unreasonable to fall back on the original irritation with its reactive inflammation. The factors for a malignant growth are ready to hand, a nest of cells of a type approximating the embryonic and an imperfect tension to hold their activity in check. The inflammation, by widening the tissue spaces, diminishes the tension further, while the impulse which it provides for the fibroblasts may well be furnished to the *nævus* itself. Such a theory, of course, requires evidence of the primary appearance of inflammation, a difficult matter, and a further demonstration of the nature of that stimulus which is impossible at present. Once proliferating, the cells, as Waldeyer holds, probably acquire a motility of their own.

Clinically, the course of melanoma derived from moles is so nearly uniform that a single description will suffice for them all. Following irritation or inept surgery, the flat *nævus* increases in size, becomes rounded, the folds of the *nævus* disappearing, and the growth takes on a deeper color, brown or black, or with a dark reddish tinge of congestion. The tumor is single, hard and painless. It rarely ulcerates spontaneously, but when it does, the ulcer is usually superficial, often a mere erosion. From the surface exudes a thin, dark fluid which becomes brown on drying, owing to the presence of pigment. After a variable time, as much as ten years, according to Quénu (death followed dissemination in six months), local spread occurs in the skin and subcutaneous tissue. This feature may be absent and metastasis appear first in the regional lymph nodes or it may be generalized at once over the body. The local spread takes place exclusively through the lymphatics of the deep or superficial plexus, with the lymph stream or against it so that the primary neoplasm becomes surrounded by numerous secondary tumors. These daughter growths can often be felt in the hypoderm through the skin before they are visible. They are at first colorless, then red, bluish, and finally brown or black with a suggestion of blue, and may attain a size much greater than that of the parent tumor. Like it, they rarely ulcerate. A curious feature of this type of melanoma is that the primary tumor, as well as any of the metastases, may undergo complete involution, leaving only a pigment spot to mark the site. Un-

fortunately, this retrogression never happens to them all. The first metastasis may lie deep in a neighboring muscle. Secondary tumors may be almost or completely free of pigment (Borst⁷), although the primary growth is black with it.

Taylor reports a case in which ten years elapsed between local and general dissemination, a not unthinkable period of quiescence, but one which is, I believe, unique. A very short interval usually passes. The two types of dissemination may occur in any sequence, but the skin process is obviously first discoverable. The number of secondary growths may be immense, or there may be only one. I have seen metastases in almost every organ in the body, but they are most frequent and striking in the liver, lungs, and brain. They cause infarction in the brain and myocardium. When the kidney is the seat of metastasis, and even when it is not, the patient may have melanuria. On evaporation of the urine, besides the usual waste products, brown pigment granules can be recovered. There is often a melanæmia showing pigment free in granules and cylindroids, probably casts of the smallest capillaries, and crowding the leucocytes. The white cells are increased in number and there is a secondary anæmia. Owing to the ingestion of the pigment by the endothelium of the capillaries, all of the organs may acquire a black tint. Melanosis of the skin is a striking feature in certain cases. Aside from the local effect of metastasis (infarct or mechanical interference with function) the patient may die of general cachexia.

It is a widely accepted view that local dissemination is the inevitable precursor of death. Experience has proved that the case is not altogether hopeless until general dissemination occurs, although it must be confessed that it is nearly so.

There is one more point to be noted in this general consideration. As one would naturally expect, inoculation experiments with fresh melanoma tissue have proved complete failures. Hensen and Nolke⁴³ inoculated rabbits with portions of a tumor excised at autopsy. Gilchrist²⁸ mixed fragments of tissue with sterile bouillon and injected the emulsion into a dog which, like the horse and cow, is susceptible to melanoma.

The following series of cases I owe, almost without exception, to the kindness of my friends:

CASE I. Male, aged 55, Russian. (Case of Dr. O. H. Schultze.) The tumor was congenital and remained small and painless until ten months before the time of operation. Then it had reached a diameter of two and a half inches with a thickness of one inch. It was located

on the dorsum of the foot. The color after excision was irregularly mottled, bluish-black and white. There was no ulceration. As the growth was subjected to a mere local removal, in less than a year the patient returned to the hospital with indurated, enlarged groin nodes and a perceptible cachexia. He was still alive a short while ago (January, 1904).

The tumor presents a remarkable histological picture. It has evidently passed far beyond the limits of the parent nævus, but nevertheless retains or reproduces in part the nævoid structure. The hypoderm is the chief seat of the neoplasm over which the cutis, flattened by pressure, shows enormously dilated vessels. The papillary body is the seat of a patchy subacute inflammation only while the epithelium shows no change except slight pigmentation, chiefly because the tumor does not approach the surface closely enough. There is very little formation of new connective tissue, and only here and there a reactive inflammation with infiltration of plasma cells and lymphocytes and fibroblast proliferation. There is none of the sclerosis of collagen fibres seen in scirrhus carcinoma, and only the slightest attempt at encapsulation which is due solely to condensation, a pressing together of the white fibrous tissue by the cell mass.

In the gross, the melanoma is composed of irregularly lobulated or diffuse areas, marked out peripherally by black pigment, or strewn with it, but sometimes entirely free. It is not possible to take the whole tumor in one photograph, so what I regard as the most characteristic portions have been selected for reproduction in the accompanying figures, 7 and 8. In Fig. 7 are seen, under a fairly high power, alveoli sharply outlined by connective tissue which are distinctly nævoid in character. The cells are rather small, not more than twice the diameter of a white corpuscle, with a clear homogeneous protoplasm and a vesicular nucleus, which shows a slight tendency to hyperchromatism. They are round or polyhedral from pressure, and completely fill the spaces in which they lie. From these areas, at one side, run single strands of cells in the spaces between the collagen. As they pass further from the alveoli their character becomes changed, they increase in size and take a spindle shape. The homogeneous, non-staining protoplasm becomes basophilic and the nucleus becomes very large, filling a large part of the cell body. It is oval, still vesicular and contains numbers of chromatin granules of great size and irregular distribution. The nuclei have the appearance of karyorrhexis, but as there is no other sign of cell death, the change may be regarded as anaplastic. In certain cells the chromatin granules are arranged

in what seem to be mitotic figures, skeins and asters. The nuclear body in them can be seen with a constriction indicating beginning division; at times there are two in the cell. These large spindle cells (Fig. 8) may carry pigment granules in their protoplasm, the small round cells of the alveoli and the beginning of the strings do not. The spindles are placed end to end in single rows, generally following the lymph spaces.

In addition to the alveoli of small cells there are areas, also alveolar in arrangement, in which the cells attain very large size, the spaces in which they lie being proportionately widened. They have relatively small nuclei and a large expanse of protoplasm which, while no longer homogeneous, stains with difficulty. The protoplasm contains granules and vacuoles, the result of fatty or hydropic degeneration, probably the former because of the association with the granular process. The cells, as in *nævi*, may be almost completely destroyed, leaving only a small amount of protoplasm about the nucleus, with strings of protoplasm stretching out into the neighborhood. These cells, like the small ones, are not pigmented. They may contain two nuclei which are not particularly hyperchromatic, but they are not, strictly speaking, giant cells. In fact the giant cells, so common in other melanomata, are lacking in this tumor. This type of cell is familiar in certain endotheliomata, particularly of the parotid.

Chromatophores occur in abundance in certain areas. They are found rarely about the vessels and more rarely still applied to the periphery of the alveoli. They are numerous in the neighborhood of the pigmented spindles and in well marked rows in broad bands of connective tissue separating the diffuse areas of this type of growth. Extensive hæmorrhage is found occasionally in these regions of spindle cells.

It is a fact of curious interest, if these tumors are derived from surface epithelium, that even when the cell proliferation is largely arrested, as it evidently is in places, there is never a suggestion of the formation of prickles or of keratin. No intercellular substance can be made out anywhere.

CASE II. Male, aged 55. (Case of Dr. W. B. Coley.) For years he had a small pigmented mole on the inner aspect of the right thigh just above the knee. In January, 1901, it became irritated by the clothes and bled a little. Shortly afterward it began to increase slowly in size, and in a few weeks enlarged nodules were noticed in the groin. They attained large size, and in July were removed with two

tumors from the thigh. From then to October he received injections of the mixed toxins of streptococcus erysipelatis and bacillus prodigiosus. After a temporary diminution in number the cutaneous nodules on the thigh increased rapidly, entirely encircling it above the knee. Amputation was done just below the trochanter, and for a time the patient gained in weight. In the latter part of November, evidence of general metastasis appeared and death occurred four months later, fifteen months from the first symptom noticed.

The material received consisted of a piece of skin from the thigh, four centimeters by two. In it there were numerous growths from microscopic size to that of a hazel-nut. The largest tumors are in the hypoderm, and there they are almost pigmentless. Those in the cutis are all melanotic in varying degree. Some, which are nearly black in the gross, show surprisingly little pigment, microscopically. In addition to the melanoma deposits the skin is dotted by freckles, several of which on section show no tumor cells, only a deep color in the basal cells. Very few chromatophores are to be found in the neighborhood of the freckles. (Fig. 9.)

The cell character is practically the same throughout. It is a rather small, round cell nearly approaching those of the small alveoli in Case I, the same clear protoplasm and slightly hyperchromatic, vesicular nucleus. It is likewise prone to fatty degeneration. At times the alveoli are half empty and show considerable granular detritus. This is probably the process responsible for the involution noted in the history. Most of the cells lie inside fully formed lymphatics, thereby dilating them. Others are found free in the tissues, particularly the fat, in strings or small groups.

This case illustrates the genesis of cutaneous metastases better than any other in my collection. It is evident that after the first purely local diffusion between the collagen fibers the cells find their way into lymphatics and are conveyed by the course of the stream and their own weight to the deeper plexus. Once there it seems to be a matter of indifference whether they proceed with the stream or not. At any rate they certainly mount against it to the tips of the papillæ. (Figs. 10 and 11.) A growth like this may be followed in serial sections up from the hypoderm, since being secondary it cannot pass down from the surface. The column of cells is solid and continuous. When it finally reaches the surface, the rete pegs and the whole body of the epidermis begins to atrophy until it is finally reduced to a straight line two or three cells thick (Fig. 12). Those cells in the lymphatics which do not go to form local metastases in

skin, hypoderm or muscle, are swept into the nearest nodes. Those outside the vessels pass at random through the tissue spaces, being arrested in places long enough to form alveoli, in others (see Case III) spreading diffusely, singly and in columns.

There is very little pigment in these secondary tumors, none of it free, all contained in epidermis, melanoma or chromatophores. The last are small spindles scattered throughout in small numbers, chiefly about the blood vessels. The tumor cells show less than in any melanoma I have ever seen. The case is also remarkable for the persistence of a single cell type, and that not a markedly anaplastic one.

CASE III. Male, aged 32, engineer. (Case of Dr. Reyling, Kansas City.) No family history. Admitted to hospital October, 1901. Six months previously the only pigmented spot on his body had been a mole on his back. At the time of admission multiple small black nodules, varying in size from one-half centimeter to two centimeters, were scattered over the body. They were especially abundant on the scalp, face and anterior surface of the trunk, but were found also on the back and extremities. There was a small black spot on the conjunctiva of the left eye. General condition very bad, emaciated, weak, dizzy and stupid. Temperature, 97 degrees F.; pulse, 90. After a short time he died in coma.

Autopsy: Lungs melanotic throughout, closely dotted with large and small tumors, deeply congested. Liver enormously increased in size, congested and showing innumerable circumscribed metastases of all sizes, some pigmented throughout, some fairly free, and others outlined by a black ring. The spleen showed a similar condition. In the heart, in addition to the melanosis and tumors, there was a large infarct of the myocardium two and a half centimeters in length by half that in breadth. The brain was deeply pigmented all through and the seat with its meninges of metastases. Cord not examined. The kidney showed no general melanosis, only a few small tumors, while the urine found in the bladder was black.

The skin from which the accompanying colored plate was drawn, came from the trunk. In the gross it is sown with black sessile tumors about as closely as possible to leave any sound skin between. The derma is chiefly affected, but the hypoderm and fat are not free. The areas involved do not seem sharply demarkated, as in Case II. The growth is microscopically, in the cutis, either diffuse and without any regular arrangement or there are formed circumscribed alveoli filled with cells. In the colored plate, No. I, the cells are round or polygonal bodies, fairly uniform in size with round, slightly hypochro-

matic, vesicular nuclei. Their protoplasm is granular and acidophile. There are very few mitotic figures. Division seems nearly all by mitosis. They show a considerable amount of pigment, almost all at the periphery of the alveoli which are surrounded by a delicate areolar tissue. The stroma sometimes penetrates the mass partly dividing it, but cannot be demonstrated between individual cells. The cells show no degeneration except an occasional nuclear vacuole. The chromatophores lies in close apposition with the periphery of the tumor masses, the endothelium of the small blood vessels and the epidermis. Pigment granules can be found free in the tissues and in endothelium. It is not all melanin in this case, for some of it stains blue with Perls' reagent, but this hæmosiderin is probably produced by minute hæmorrhages, such as those of Case I.

It will be noticed that although the lesion is metastatic, there is, besides the atrophy of epidermis from pressure, a hyperplasia producing great elongation of the pegs, bringing them into close apposition with the tumor. References has been made to this phenomenon in the section on nævus, but here, on account of the absence of metaplasia in the prickle cells, there is no difficulty in differentiation between them and the new growth. It is a constant phenomenon.

There is increase both of collagen and elastin, especially near the alveoli, and a considerable lymphocytic infiltration. Most of the cells in the cutis lie outside of the vessels which are merely dilated.

The individual cells do not retain this regular appearance. In some, anaplasia is complete. They are of any size up to true giant cells 60 microns in diameter. These irregular forms have an intensely acidophile protoplasm which may be full of pigment granules. The nuclei may occupy almost the whole cell body and have no definite form, simply a structureless mass of densely staining chromatin. The nuclear body may develop very large vacuoles, but never shows pigment. Small cells occur, reproducing this picture in miniature.

The lungs, in section, show little congestion but a considerable amount of anthracosis as well as melanin. The latter may be seen also in intravascular leucocytes and endothelium. The tumor appears everywhere in circumscribed areas in the interalveolar septa chiefly, the cells being large, anaplastic and partly pigmented. There are small areas of atelectasis, but the parenchyma is otherwise unchanged.

In the liver the tumor appears the same except that the cells are larger as a rule. They are arranged almost universally in alveoli formed in blood vessels and Glisson's capsule. Here and there a

single cell lies free in a blood space. As a result of pressure the liver parenchyma is largely atrophied or in a condition of fatty infiltration and degeneration. There is a local bile stasis, but the great part of the pigment is melanotic.

This is the only one of my cases which presented melanuria. I have examined it faithfully for evidence of Eberth's⁴³ phenomenon, a passage of the tumor cells through the glomerular tuft. Endothelium, Bowman's capsule and Henle's loop are lightly pigmented, but there is no migration of melanoma cells into the tubules. A very few appear in the vessels. The cortex is sparsely dotted with small, round metastases.

The pancreas shows numerous metastases, all alveolar, and small, round celled in the parenchyma and interstitial tissue, none in the bodies of Langerhans.

There is a point worth notice in regard to all the organs of this case. In the endothelium of blood capillaries in many places are fragments of eosinophilous material which may be hyalin but which various considerations lead me to believe fragments of red blood cells. The englobing cell is a little swollen, not otherwise changed. To its outer side is always applied a single or a mass of chromatophores. The observation is suggestive as to the origin of the pigment, and I offer it as such. In a few of the giant tumor cells whole red cells or fragments of them may be englobed. These cells are invariably pigmented.

CASE IV. (Case of Dr. G. W. Wende, Buffalo.) Male, æt. 24, a strong, healthy laborer. A small mole on the shoulder became irritated as a result of carrying firkins of lard, and after increasing in size became ulcerated. It was subjected to the inept surgery previously mentioned. A ligature was tied around it. The greater portion separated but soon showed renewed evidences of growth accompanied by development of other tumors in the neighborhood, some pigmented. When first seen by Dr. Wende, more than 200 tumors, some of them quite large and sessile, were scattered all over the body. After a few months of suffering from most distressing dyspnœa the man died, with evidence of mediastinal growth and involvement of the viscera.

The autopsy was done by Drs. Wende and Gaylord. The findings of Case III were repeated here with the exception of the heart, which presented an extraordinary picture which I have not seen or found described in the literature. The pericardium, myocardium and endocardium were the seat of innumerable small, round, white or pig-

mented tumors, generally about the size of half a centimeter, so closely set as to leave scarcely any healthy tissue between them. Infarcts, if present, were too small to be noticed among the tumors. Not a viscus escaped.

The skin was, unfortunately, lost in transmission to me, but I have the liver, kidney and lung. In the lung there is little anthracosis, its pigmentation is almost all melanin, lying in chromatophores, endothelium and tumor cells. The metastases are small, very numerous and universally distributed in the walls of the bronchi, the interlobular and interalveolar septa and in the pleura. Many of the smaller vessels are choked with them. The cells are rather large, 10 micron to 15 micron in diameter, and more uniform in size than in Case III. Otherwise their appearance is closely similar, granular protoplasm pigmented at the periphery and deepest at the borders of the neoplasms, large round hypochromatic nuclei with many mitotic figures. The nuclei show large vacuoles occasionally. Lymphocytes, polynuclears and red corpuscles are all pigmented.

In the liver the deposits are also rounded and circumscribed, with a good deal of new connective tissue surrounding them. There is none of the diffuse growth seen in the liver of choroid melanoma described in the last section. The connective tissue is full of pigment carriers, sometimes completely encapsulating the metastases. (Fig. 12.) The kidney shows a picture identical with that of Case III, and again it is impossible to demonstrate the presence of tumor cells in the tubules.

CASE V. Middle-aged man. The history is indefinite, but the primary focus of disease was located on the foot. A short while after attention was drawn to it metastases appeared scattered through the skin of the leg. The tumor which came to me was excised from the thigh. It is small, black as ink, located in the hypoderm and presented an appearance totally different from any I have encountered. The cutis and epiderm are intact. The melanoma is sharply circumscribed above and below, less so at the sides. It is composed almost entirely, as is seen in Fig. 13, of what one is tempted to call chromatophores, but what are probably tumor cells packed so tightly with melanin that none of their protoplasm appears and their nuclei are almost all obscured. Here and there in the section are giant cells with a single, hyperchromatic nuclear mass and very few pigment granules in the protoplasm. They seem to lie in small lacunæ. There is no pigment free in the tissues which show little inflammatory reaction.

CASE VI. (Case of Dr. George P. Biggs.) Male, aged 33. One and a half years before admission to hospital he noticed an increase in area and thickness of a mole just below umbilicus. The size increased from one-half to one inch in two weeks, and it was excised. In March, 1902, a hard painless lump appeared in the right groin. It increased slowly in size, until September, when it was red and tender. By November 1st, he developed headache and vomiting, both of which became worse up to time of death, December 16, 1902.

An extraordinary condition was found at autopsy. The only metastases present existed in the brain. A large number of more or less pigmented nodules of various sizes were found throughout its substance, and in the ependyma, the cells being almost exclusively spindles.

CASE VII. (Case of Dr. Wm. Esler.) Male, aged 54. Much emaciated. History of right hypochondriac pain, preceded for six weeks by vomiting and swelling of the feet. Abdomen partly filled with fluid and partly with a very hard nodular mass extending from just below the umbilicus to the seventh intercostal space. Fluid was drawn from the abdomen and found to contain red cells, a few polynuclear and numbers of mononuclear cells and 12 grms. of albumin per liter. The urine was dark red, cloudy and deposited heavy pink sediment. Sp. gr. 10.28, no sugar or albumin. Blood examination showed hæmoglobin, 70 per cent.; red cells, 3,500,000; leucocytes, 15,200. No mention is made in the record of any examination for the presence of pigment. He died fifteen days after admission, and a complete autopsy was done.

A most careful search failed to reveal any trace of nævus or other melanotic growth on the skin or mucous membranes. There was no scar resulting from the removal of any such tumor. The eyes could not be completely examined, but nothing could be seen externally, and there was no exophthalmos. A polyp was found in the rectum but four inches from the anus and of the ordinary pedunculated glandular type. The liver filled the whole upper half of the abdomen, weighing 10 pounds 11 ounces. The surface was of dark green color, studded with numerous yellowish-white and black irregular nodules. On section there were myriads of tumors varying in size from a millet seed to a large hazel-nut. Some of the masses were black. Pigmented tumors were found in the right suprarenal, wall of the right auricle, on the pleura, pericardium and peritoneum, and on the mucous membranes of stomach and bladder. The central nervous system was free. The lungs showed broncho and lobar pneumonia; the kidneys, secondary contraction.

The cellular type most often encountered was a spindle cell gathered into more or less rounded areas. The cells were deeply pigmented in places, and chromatophores were found in numbers in the stroma surrounding the metastases.

The interest in the case lies in the impossibility of fixing the original focus. It was certainly not in the skin; almost certainly not in the eyes. A nodule was found in one suprarenal where pigment may occur. There must have been either a small melanoma in one of the uveal tracts or else the tumor must have originated in the adrenal, as Reimen claimed for his case, although in this there is nothing to prove that this was the original focus. Its point of departure was undoubtedly endothelium, but it is difficult to believe that a primary growth, responsible for such wide-spread metastasis, could remain microscopic in size.

There is little or no difficulty in differentiating histologically between the nævus and melanoma springing from it. In the latter the characteristic cords and superficial alveoli disappear in a diffuse growth whose cells, while they may be of great variety in shape, have only a remote resemblance, in any event, to the nævus cell. They become very soon anaplastic, showing the protoplasmic and nuclear changes of that reversion state. The nævus may be considered malignant at the moment its cells begin to show mitosis or amitotic division in any noticeable number, or when they begin to infiltrate the surrounding tissue. A malignant tendency may be suspected when nuclear hyperchromatism becomes prominent.

One point in the histology of melanoma should be noted. It is impossible to attach any prognostic significance to the type of tumor cell. In Case II, the most rapidly fatal of my series, the neoplastic elements not only approached the nævus character more closely than in any other, but they showed a rather high grade of fatty degeneration which should have theoretically restrained their proliferative capacity to some extent.

II. Melanotic Whitlow. Malignant Lentigo.

References to these tumors are common enough in French and British literature. They are conspicuously missing in German and American reports, although the cases are undoubtedly observed. No trace of nævus structure is present in them, but there is nothing lacking in their malignancy.

Melanotic Whitlow: Hutchinson⁵⁶ first described the condition

which he called melanotic whitlow. Faguet⁵⁷ and Plantier⁵⁸ have written extensively on the subject. Coley reports a rapidly fatal case in the discussion on Galloway's⁶² paper. The disease generally appears first in the lateral nail fold following injury, always on a single finger or toe. In the beginning it has the appearance of a chronic onychia, the fold is tumefied and painless. It resists treatment, and in a short time ulcerates, develops a fungating growth and becomes pigmented. The whole of the distal phalanx becomes involved and the nail is lost. From the ulcerating surface exudes a thin, dark fluid which stains the dressings and becomes brown on exposure to the air, like that seen in ulcerated *nævomelanomata*. A feature of these neoplasmata, not present in melanotic tumors of *nævus* origin, is the development, about the time of ulceration, of pigmented streaks in the neighborhood, not in the growth itself, of a slate color, very like that produced by nitrate of silver on the skin. Dissemination takes place in the skin and in the neighboring lymph nodes which may reach very large size. Imperfect removal has a most stimulating effect on the spread. General metastasis precedes death, as in *nævomelanoma*.

CASE VIII. The disease began in the nail of one of the fingers, and as amputation was done, it is to be hoped that the patient is still living. The tumor is ulcerated and the ulceration filled in by granulation tissue, but there is nothing to be seen anywhere remotely imitating the structure of *nævus*, as was described in Case I. The point is difficult to determine at this stage, but the process seems to have begun in the hypoderm, spreading from the central focus in every direction, chiefly through the interfascicular lymph spaces, but by the lymph vessels as well. When it reaches the surface the epithelium becomes pigmented and undergoes hydropic degeneration as a result of the inflammatory process accompanying the spread. Its cells are gradually desquamated until the cutis is laid bare and superficial necrosis produces slight ulceration.

The tumor cells are almost all spindle-shaped and rarely occur in masses. They seem to have a tendency to dissect the collagen fibers in single strands. A few of them are small, round and collected in minute alveoli. There is no regularity in the distribution of either type. The whole thickness of the tumor is not more than a centimeter. The cells are scattered thinly throughout the granulation tissue filling the ulceration. The endothelium of the newly formed vessels near the surface shows an anaplastic character. The lining cells are much swollen, their nuclei contain an excess of chro-

matin, and the protoplasm has a slight basophilic tendency. Solid cords and single cells, a few showing mitotic figures, project from these vessels into the œdematous surrounding tissue. They are easily differentiated from the completely changed tumor cells proper, with their acidophile cell body and diffusely staining nuclei. (Fig. 14.)

The pigment is irregularly distributed in spindle and branched chromatophores and in the bodies of the elongated neoplastic elements, which may be so filled as to obscure their nuclei. The general resemblance of the picture to that of choroid melanoma is striking. It seems impossible to trace the cells in this diffuse growth to their exact point of origin, but from the facts that there is no intercellular substance between them, that their growth begins in the hypoderm, and that the epithelium shows only secondary changes, and among them only degeneration, and that finally the appearance of the tumor is identical with that of nævomelanoma, it is more than a fair assumption that the genesis is endothelial. Whether from lymphatics or blood vessels is a purely academic question of no great moment.

As indicating the probable origin of this type of melanoma, I may refer to the case reported recently by Miller to the American Association of Pathologists, and to a second excised from the bed of an ingrowing toe-nail (case of Dr. F. W. Hastings). In the first, which was excised from a finger tip, Miller traced the new lymph vessels into the original ones, following step by step the evolution of spaces lined by several layers of cells. In the second, while no such convincing demonstration of continuity of structure was made, the growth is made up of newly formed spaces lined with flat or swollen endothelium, some dilated and containing lymph, others showing a number of layers of cells partly or completely surrounding the lumen. The cells have a clear protoplasm and vesicular nuclei with nodal points of deeper staining. Occurring in the situation for melanotic whitlow in the subcutis, it may be that both represent the stage of whitlow before the pigment appears and the diffuse melanoma is a lymphangioendothelioma in consequence.

Malignant Lentigo: This title is French; Hutchinson calls the process lentigo melanosis, which is redundant while no more accurate. Dubreuilh⁵⁹ and Bayet⁶⁰ have described it at length. I was greatly puzzled as to a place for my own case until I saw Dubreuilh's note in "La Pratique Dermatologique," t. IV. The history is not that of a nævus or an onychial growth. The process occurs generally, not always, in old men, and on the extremities, oftenest the feet. A pigment spot, which if not congenital at least is of long standing, begins

to enlarge and shows a sharply marked serrated border. If the clothing rubs it, recurrent blebs may form on it, and after a time a thickening appears at one or several points and spreads over the patch. The color changes from brown to bluish-red, owing to congestion. The surface ulcerates and later develops granulation tissue. As in the melanotic onychia, the nitrate of silver streaks appear running zig-zag from the ulcer. Local and general dissemination follow. The first perceptible metastasis is generally in the regional nodes.

CASE IX. Male, aged 50. (Case of Dr. George Woolsey.) He had, for twenty years, a pigment spot in the mid-third of the leg. It became irritated, swelled, became red and finally ulcerated. At the time of observation there was an oval ulcer, running with the length of the leg, about two and one-half inches in its greatest diameter, slightly excavated and with a granular floor. Around it a border appeared, slightly elevated, reddened, showing pigment on pressure. Running from it were several nitrate of silver streaks one to two inches long and three-eighths of an inch wide, sharply margined and level with the skin. In places, in the center of the streak, the epidermis was dissected up and showed ragged edges. In the groin there was a single enormously enlarged node. The ulcer and the nodes were excised.

Sections through the edge of the ulcer showed granulation tissue, with the same anaplastic endothelium as in melanotic whitlow. Between them lie round or polygonal tumor cells, generally pigmented, in the new connective tissue. They are very few in number, as they are everywhere. In the hypoderm they are generally single and spindle-shaped, lying between the fibers or in the lymphatics. No alveoli occur in any part. The endothelium of the vessels everywhere in the neighborhood is swollen, nuclei showing an occasional mitosis. I think I have traced transition stages between them and the true melanoma cells.

The epidermis presents curious changes. It stops abruptly at the ulcer's edge and is generally lifted for some distance *en masse* from the cutis, very little change appearing in its cells. In the space so formed tumor cells sometimes lie. There is no hyperplasia in any layer, and a minimum of pigment in the basal cells. In the sections from the silver streaks conditions are different. There is no melanoma in the cutis except a rare cell in a lymph vessel. The epithelium is hyperplastic. The pegs are elongated, they anastomose, and in the lower layers the cells are deeply pigmented. They show a meta-

plasia, but one unlike that of *nævus*. The cells are elongated and loosened from their attachment to each other and to the basement membrane. There are no chromatophores between them and few in the tissue below. The metaplasia is diffuse, not focal, and ceases abruptly at the border of the streak. The epithelial cells do not penetrate the cutis. (Fig. 15.)

The inguinal node excised is as large as a goose egg. It is deeply pigmented irregularly throughout. The whole of the central portion is occupied by the melanoma and its new stroma, the cells being large, some of them giant, spindled from pressure and occupying large areas to the exclusion of other tissue. In the dilated outlying lymphatics they are rounded and may fill the space. The node capsule is thickened and, owing to pressure atrophy, little remains of its structure, a thin band of lymphocytes and stroma pressed solidly against the capsule.

Galloway's⁶² and one of Crocker's⁹ cases belong to this category. The first appeared in a man on the sole at the base of the toes following blister formation during a period of five years. There was an irregular ulcer bordered by pigment. Amputation was done at the tarsometatarsal articulation with no return after six months. The new growth consisted of round or polygonal cells along the length of the papillæ or around the blood vessels. The lowest epithelial layers lost their regular appearance, became rounded and seemed to proliferate. As a result of this and the new growth in the cutis, the border became blurred. There was, as in my case, no trace of *nævus* formation, the whole process "looking like inflammatory exudation."

Crocker's patient was a woman whose tumor began with blistering on the heel. She died in nine months from the time the process began to attract notice.

MELANOEPITHELIOMA.

Unna asserts, in his *Histopathology*, that with the exception of his *nævocarcinoma* no such neoplasm as melanotic epithelioma exists; Borst⁷ says that the view that pigment tumors grow from pigmented epithelium, whether of the eye or the skin, is rightly viewed with suspicion. They are, however, to be found in the literature and are generally cited by the authors in support of Unna's theory, ignoring differences in the histology, such as the presence of prickles on invading cells, and the total absence of any *nævoid* structure. The second of Gilchrist's²⁸ cases is undoubtedly a melanotic epithelioma, as is the one reported by Hartzell.⁶³ Whitfield,²⁷ in two of his cases,

has noted the lack of *nævus* formation and a great difference in malignancy from that of *nævomelanoma*. He asks for a clinical or histological criterion, and through the accuracy of his observation gives it himself, going on to describe the surface metaplasia in *nævomelanoma* and the cords deep in the cutis, and stating that the latter do not appear in certain cases which would make him doubt the previous existence of a *nævus* if it were not for the clinical history. The history of a cutaneous melanotic tumor is hardly the best of guides as to its nature and probable course.

Every one of the tumors in my three cases was excised under the misapprehension that it was either a *nævus* or a *melanosarcoma*. Their development was very slow, the origin being congenital in Cases X and XI. They were excised with no particular care except in No. XI, and the result has been perfect in each instance. Since they conform largely to well known histological types, and since the photographs represent the condition as well as could be desired, I shall merely sketch their microscopical appearance. They were unsuccessfully tested for the presence of hemosiderin their pigment being melanin.

CASE X. *Melanotic Rodent Ulcer*. The nodule no bigger than a pea was excised from the center of the forehead of a young man with a diagnosis of *melanosarcoma*. It was level with skin surface and very hard. The structure is typical of rodent ulcer in an early stage. The cells are small, round or spindle, with small, deeply staining nuclei and clear, non-staining protoplasm. They occur in thick, solid cords ramifying through the connective tissue, the continuity with the surface easily demonstrable. Scattered through the cellular mass, and in its vicinity, are large polygonal chromatophores completely filled with melanin. (Fig. 16.)

CASE XI. *Melanoepithelioma*. The lesion occurred on the cheek of a woman of 24. It was an inch in length by half that breadth and ran downward from the malar eminence toward the angle of the jaw. A short distance from its lower edge there was a rounded tumor of pea size. Both were elevated above the skin with a rough, scaling surface and jet black in color. The patient stating that they were growing, I made a diagnosis of mole tumor and recommended excision which was done by an elliptical incision including both areas, the edges being approximated to obviate granulation.

On section the growths are limited to the cutis, showing a maximum thickness of a quarter of an inch. The tumors are entirely separate and confined to the epidermis. The pigmentation is the deep-

est I have ever seen, occurring even in the horny cells. The chromatophores are in such number at the cutis border as to obscure the dividing line. From colored plate No. 2, taken from a section bleached as far as possible, some idea may be gained of the quantity of melanin present. The plate is not otherwise as successful as could be wished. It does not represent the transition which is present between the mucus layer and the tumor cells below. It is very gradual in places. The cells which form the mass of both neoplasms are evidently derived from the basal cells, since the prickles exist above them. They show a high degree of metaplasia, being small and elongated like those of rodent ulcer but with vesicular nuclei and an intensely basophilic protoplasm. Prickles can be demonstrable irregularly developed on certain cell bodies. The interpapillary projections are thickened, elongated and the metaplasia follows the basal layer into hair follicles and sebaceous glands.

CASE XII. *Infiltrating Melanoepithelioma*. This tumor was excised from the fore-arm of a man of middle-age. It was slightly melanotic and level with the surface. Fig. 17 shows the edge of the growth; Fig. 18 the central portion. Pigment is present in the epithelium and in chromatophores in the cutis, but to no extent resembling the case just described. In the lower epidermic layers, the cells lose their prickles and undergo a sort of colliquation by which they fuse with each other and form multinuclear masses. Serial sections show the passage of these pseudo-giant cells and mononuclear bodies into the cutis where they finally lie free in the tissue spaces, singly and in groups. They retain the acidophile character of their protoplasm and, to a large extent, vesicular nuclei; some of them stain diffusely and show hyperchromatism. Very few prickles and no pearls of keratinized cells are present in the cutis or hypoderm, so that the diagnosis rests largely on the demonstration of continuity with the surface epithelium. Here, as in case XI, there is a moderate reactive inflammation in the shape of a patchy lymphocytic infiltration. The illustrations demonstrate the fact of the total absence of any vestige of nævus.

MELANOMA OF THE EYES.

Fuchs⁴⁰ asserts that melanomata of the uveal tract are almost all pigmented, 88 out of 100 cases. The actual point of origin seems to trouble histologists very little, but, unquestionably, most uveal melanomata appear in the choroid, without the intervention of any nævus formation. Since epithelioma may result from retinal proliferation,

and since its lowermost layer is pigmented, it is quite possible that there may be a melanoepithelioma of that organ.

The material from orbital melanoma at my disposal is quite limited, consisting of the original choroid tumor in one case, the liver from another, and a pigment fleck from the plica semilunaris in a third. The first was removed a year ago and is now growing rapidly, filling the entire socket and projecting outward. The growth originally excised was flat and diffusely spread along the choroid. It is irregularly and deeply pigmented. Histologically, there are spindle and polygonal cells disposed in rows and alveoli between the collagen fibers. The cells show granular protoplasm and hyperchromatic nuclei generally dividing amitotically. They are partly and irregularly pigmented. About the cells, and in the neighborhood of the tumor masses are numbers of chromatophores. (Borst⁷ has described and pictured a choroid tumor which consisted of these cells alone.) It is impossible to determine histogenesis from the specimen owing to the patient's refusal to permit enucleation, but from the fact that the retina was not involved and the identity of the picture with certain skin growth, a diagnosis of melanoendothelioma may be ventured, melanosarcoma as Borst still calls it.

The liver in the second case has some intrinsic interest. It was part of a generalized melanotic metastasis in which the original focus could not be discovered. Nothing was found on the skin and the patient gave only a vague history of eye tumor ten or twelve years before. The liver was of enormous size and mottled black. In section there was the rather unusual condition of diffuse infiltration of tumor cells. They are polymorphic, generally lightly pigmented, filling and dilating the capillaries between the rows of liver cells. The latter are atrophied from pressure or impaired nutrition and large areas are replaced by tumor masses in the interstices of new formed fibrous tissue, quite a different picture from the livers of melanoma cutis described above. The capillaries, as always, are swathed by spindle chromatophores.

The pigment spot on the plica in the third case was removed for cosmetic reasons and showed a condition quite like that called hard *nævus* in the skin. The epithelium was intact, deeply pigmented in its lowermost layers and hypertrophied. The intercapillary projections were elongated and widened, the papillæ correspondingly narrowed. The epithelial cells presented no appearance of anaplasia with no mitoses, and the growth, as a whole, was probably innocuous in its present state. Chromatophores were scattered sparsely through

the corium. (These reports are made as cursory as possible, because the discussion in this paper is mainly concerned with cutaneous melanoma.)

TREATMENT.

It has been a matter of general belief that melanomata of any sort are best left to themselves, that surgical interference adds fuel to a flame already burning fast enough. This view is certainly correct as regards feeble attempts at removal, such as ligation, cautery or excision, worst of all curetting which is simply criminal where melanoma is concerned. The X-rays have proved, in the main, disappointing. Beck tried it without success on lymph node metastases; Carrier reports the disappearance of the tumors of mycosis fungoides and no effect on a naevus in the area exposed; the only result secured in the second of Ravogli's cases was a severe burn. In his recent work, Allen⁶⁴ quotes six authors on this point. Four of them report cases improved; one, Gibson, a cure; Pusey and Allen's experience is distinctly unfavorable to the treatment.

There is hope in surgical interference if it is early and radical even when dissemination has already occurred locally. Pollitzer has reported a case in which there was no recurrence after excision with a wide sweep about a growing naevus of the back and a dissection of the lymphatics leading to a metastasis in one of the scapular muscles. Hartley permits me to refer to an instance of melanoma following ligation of a mole on the neck with tumor infiltration of the inter-muscular septa in every direction, which he dissected out as completely as possible with much of the overlying skin. The patient is entirely well five years after operation. Galloway's patient showed no recurrence six months after tarsal amputation. There is hardly a possibility that all the foci were removed in these operations; a few cells may sometimes be left to be cared for in the economy. Naevi and melanoepithelioma give no trouble if thoroughly obliterated. The wounds should not be allowed to granulate, if possible to do without it, not only because granulation tissue offers so slight a bar to tumor growth, but because there is no means of knowing now that its endothelium may not join in the neoplasia.

CONCLUSIONS.

1. Aside from the natural division into choroid and skin tumors, melanotic neoplasms, which from their diversity of origin, are best called melanomata show several varieties.

2. The commonest, and therefore most important, is that derived from soft nævi which are endotheliomata of lymph vessel origin. Nævomelanoma whose histogenesis it is not possible to determine must be referred to the same origin.

3. A second variety exists with the same histological pictures which does not spring from nævi and whose origin is directly traceable to endothelium, probably also lymphatic. This group includes melanotic whitlow and the malignant lentigo of the French.

4. The third division is truly epithelial in origin, although its existence has been denied. These tumors are of various types and show only a very slight local tendency to malignancy, a fact sufficient in itself to determine a cardinal difference from the melanoendotheliomata whose capacity in this connection can hardly be exaggerated.

5. A histological diagnosis is the only proper method of differentiation between the two.

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Fig. 7.

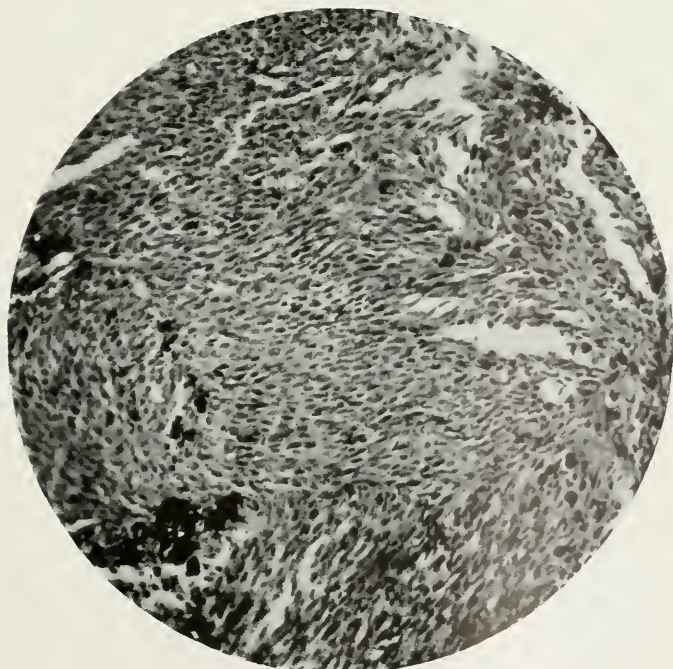


Fig. 8.

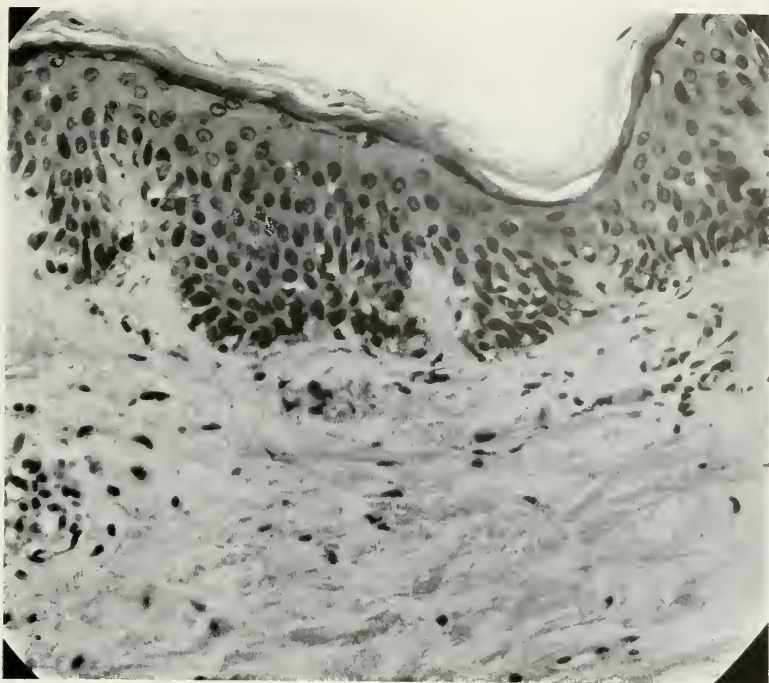


Fig. 9.



Fig. 10.



Fig. 11.

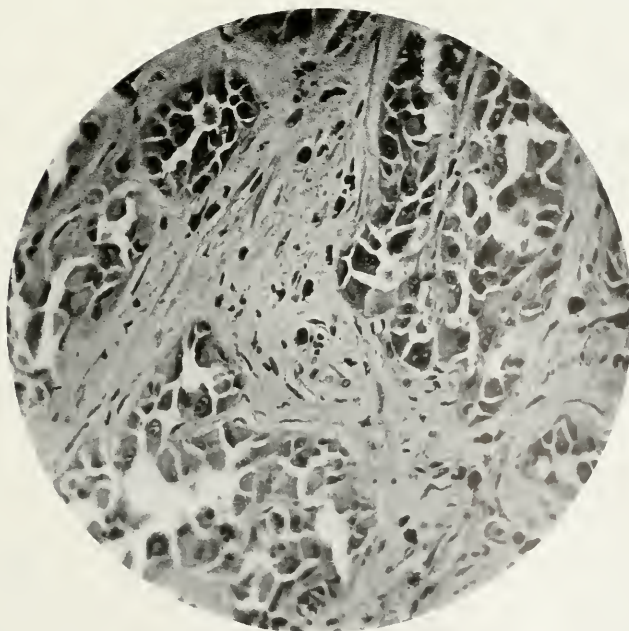


Fig. 12.

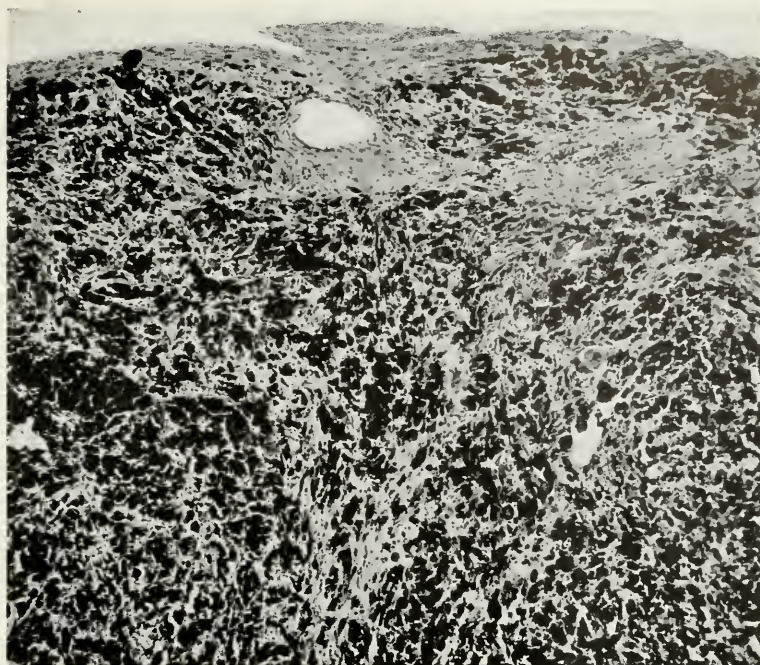


Fig. 13.

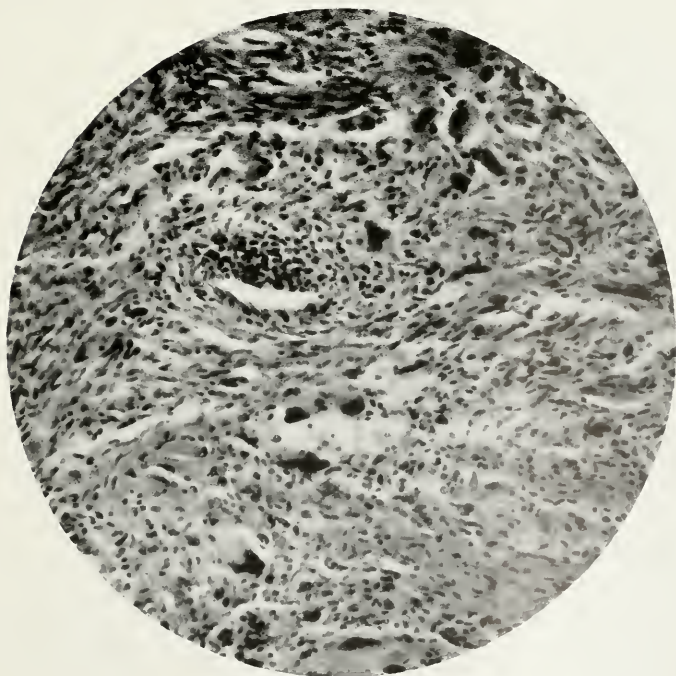


Fig. 14.

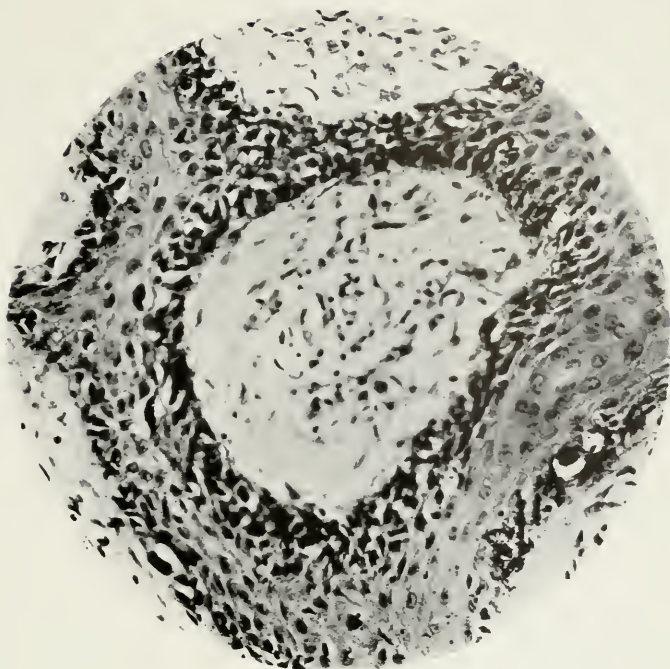


Fig. 15.



Fig. 16.

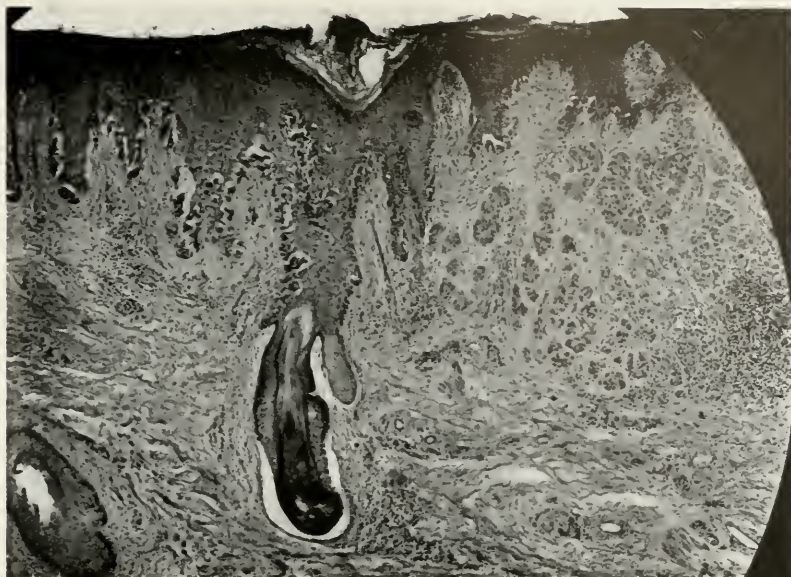


Fig. 17.

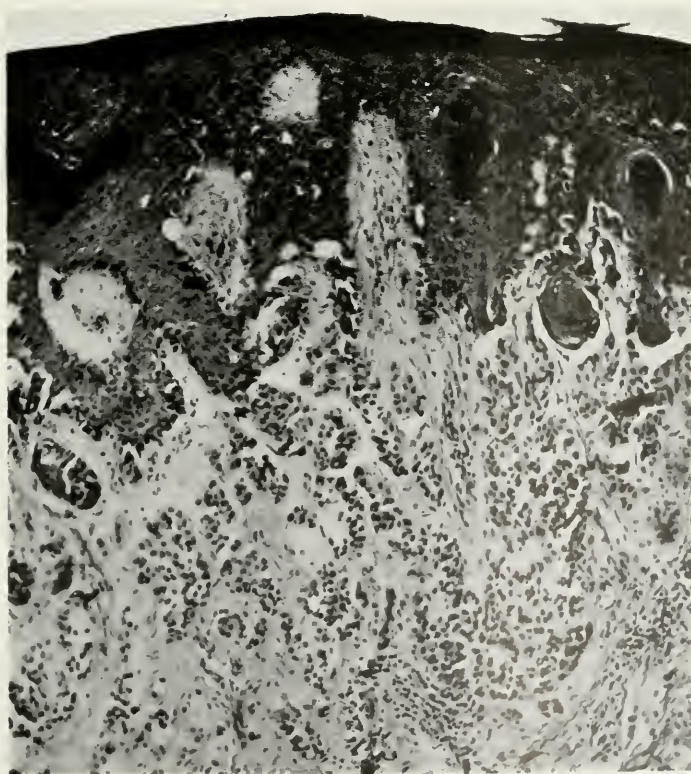


Fig. 18.

DESCRIPTION OF PLATES to accompany Dr. James C. Johnston's Article:

COLORED PLATE No. 1.

Melanoendothelioma. Metastasis in skin, showing alveoli of fairly uniform cells, some pigmented, diffuse growth, chromatophores and prolongations of interpapillary projections. Case III.

COLORED PLATE No. 2.

Melanoepithelioma. Whole tumor epithelial, no trace of nævus. Extension into sebaceous glands. Dense pigmentation. Epithelial pearls. Case XII.

PLATE IX.

FIG. 7. Case I. Melanoendothelioma, alveoli of cells closely resembling those of nævus and nearly devoid of pigment. At edge beginning infiltration of connective tissue by strands of cells.

FIG. 8. Case I. Melanoendothelioma. Spindle cell melanoma with deep pigmentation. From same section as Fig. 7, illustrating diversity of appearance.

PLATE X.

FIG. 9. Case II. Beginning metaplasia of epithelium in the neighborhood of melanoma metastasis. Hydropic degeneration.

FIG. 10. Case II. Metastatic nodules in skin of thigh surrounded by inflammation. Intralymphatic spread from vessels of hypoderm.

PLATE XI.

FIG. 11. Case II. Metastatic nodule in cutis shown in serials to be part of the column of cells sectioned lower down in Fig. 10. Epidermis thinned and flattened over tumor, hyperplastic at its periphery. Dense lymphocytic infiltration below.

FIG. 12. Case IV. Melanoma metastasis in liver. Small alveoli with new stroma showing tendency of cells to adhere to connective tissue. Chromatophores in stroma.

PLATE XII.

FIG. 13. Case V. Melanoma metastasis composed almost exclusively of pigment cells. A few giant cells seen in the lymphatics.

FIG. 14. Case VIII. Melanotic whitlow. High power view of field. Giant and spindle cells partly pigmented, dissecting the collagen fibres.

PLATE XIII.

FIG. 15. Case IX. Malignant lentigo. Metaplasia, pigmentation and hypertrophy of epithelium in "nitrate of silver streak."

FIG. 16. Case X. Pigmented rodent ulcer. (Split in section an artefact of hardening.) Chromatophores at base of epidermis and in surrounding tissue.

PLATE XIV.

FIG. 17. Case XII. Infiltrating melanoepithelioma. Periphery of tumor with beginning of process, epithelial metaplasia and infiltration of cutis.

FIG. 18. Case XIII. Infiltrating melanoepithelioma. Metaplasia in lower epithelial layers with infiltration of subjacent cutis. Cells in isolated groups show prickles.

THE USE OF ADRENALIN CHLORIDE IN HÆMORRHAGES AND ANGIONEUROTIC DISEASES OF THE SKIN.

By GRANVILLE MACGOWAN, M.D., Los Angeles.

(Read before the Los Angeles County Medical Society, November 4, 1904.)

AT the meeting of the American Medical Association at St. Paul, Dr. Takamine called the attention of the profession to the remarkable therapeutic agent which he called adrenalin chloride. I immediately secured from the manufacturers some of the drug for experimental use in operations upon the bladder and prostate. I very quickly learned to give it in doses much greater than those advised by its makers and sponsors. Since then I have administered it very freely, both internally and by local application, and have never observed any ill effects either immediately or remotely from its use.

The hæmorrhage during and after operations about the bladder neck is sometimes profuse, and always, in old persons, sufficient to be of moment, therefore an agent which applied locally is hæmostatic and given internally, either by the mouth or hypodermically, causes capillary contraction, increases blood pressure, acts as a direct cardiac stimulant and increases the urinary flow and is of great value in this class of surgical procedure.

Almost from the first I have used gauze saturated with the undiluted 1-1000 solution for packing the perineal wounds; this often requires from 15 to 30 c.c. of the drug. The first forty-eight hours following an operation, ten drops of this solution was given hypodermically every second hour. Both of these measures I still continue as routine treatment. The urine becomes free from blood much sooner, and the general condition of the patient is much more satisfactory. In cases accompanied by extreme cardiac depression I do not hesitate to continue giving the remedy in smaller doses for many days or weeks if I regard it as necessary.

In July, 1901, I had under my care a gentleman of 48 years who had profound general arterial sclerosis. There was extreme cardiac hypertrophy with dilation, distressing dyspnœa, sclerosis of the kidneys and liver with ascites and general dropsy. Urinary secretion was variable, as is usual in this condition, sometimes greater, more often much less than normal as to quantity, but with a fickle, though ever lessened, secretion of urea.

Every agent and therapeutic measure ever suggested in literature which commended itself to the consultant, Dr. Wernicke and myself, were used for his relief, with that "day better, day worse" re-

sult that so nicely demonstrates the impotence of medical art in the combat with this form of degeneration. After an unusually distressing night of dyspnœa, his nurse was terrified to find him covered with purpuric spots. For two days this dyscrasia was combatted by such remedies as are of common use, but the interstitial hæmorrhages in the skin increased until much of the body surface looked like a great bruise, and blood passed from the nose, bowels and kidneys. I then, in desperation, commenced the use of adrenalin solution by the mouth, and hypodermically into such portions of the skin as were not markedly purpuric. The dose was ten minims given at intervals of two hours. In twenty-four hours the change was remarkable. Cardiac action was steadied and strengthened, there was no further extension of the purpura, all hæmorrhage from mucous surfaces ceased and urinary secretion was greatly increased.

Before the week was out all traces of the hæmorrhagic spots had disappeared. This man lived until October in that year, and had two subsequent attacks of purpura simplex following severe asthmatic crises, both of which rapidly disappeared under the use of adrenalin.

From this time I have always used adrenalin in the treatment of purpura whether simplex, peliosis rheumatica, or hæmorrhagic, and always with marked beneficial results.

My last case, one of purpura simplex in a child born at the beginning of the eighth month of gestation, is most interesting.

Anna X, age 23, primapara; during the first two months of pregnancy had almost continuous nausea with frequent severe vomiting and more or less daily nausea with occasional vomiting until the end of the fifth month. About the middle of the sixth month this disturbance ceased. Frequent urinary analyses were made during this period, but were always negative. At the commencement of the seventh month she appeared to be so well that vigilance was relaxed for about two weeks. An analysis of her urine then made, showed, by the Purdy test, 3 per cent. of albumin. The following week this had increased to 7 per cent., and in another week to 14 per cent. Hyaline casts were present, and urea greatly diminished. The movements of the child had lessened in vigor and finally almost ceased. The mother declared she felt perfectly well and was only worried about the change in the activity of the child. She was not informed of the dangers of her condition, as she was under direct and continuous control. We had determined to produce a miscarriage, when one night just at the commencement of the eighth month, spontaneous expulsion of the fœtus commenced, and what promised to be a normal labor proceeded rapidly. When the cervix was dilated under chloro-

form anæsthesia, the forceps were applied and delivery completed by my colleague, Dr. M. L. Moore. The baby weighed only 3 1-4 pounds, but was well formed and cried lustily. There were no marks upon it except one over the frontal bone due to pressure of the forceps.

The day following its birth it looked very puny, weak and anæmic in the morning, and at night about a dozen purpuric spots appeared upon its face and extremities. These were noticed by the nurse, but our attention was not called to them until the morning of the third day when I counted more than fifty patches, varying in size from pin-head to split-pea, several being on the roof of the mouth. The urine was clear and there was no hæmorrhage from the bowels. The baby was very listless and stupid. It was rather hard to determine a dose of adrenalin for this mite, but it was necessary to stop these interstitial hæmorrhages if the child was to be saved. A half drop of the 1-1000 solution was given to it every two hours for a week. In twenty-four hours the color was improved; it was brighter and took the breast eagerly. In two days the spots had ceased appearing and the old ones had decreased in size and become fainter, and within a week had disappeared entirely. The child had gained slightly in weight; its nails, ears and lips had become of a pink color; it took food naturally, slept well and flourished. The dose intervals were then increased to once in four hours and the remedy used for another week. Ten-drop doses of pepto-manganate of iron were also given from the end of the first week at the same intervals as the adrenalin, but alternating with it. On the fourteenth day no further indication for its use existing, I ceased giving the adrenalin.

I have also applied the treatment by adrenalin chloride experimentally to several other diseases of the skin. It seemed to me to promise great benefit, theoretically, in erythema multiforme and urticaria, as the immediate symptoms of these maladies are microscopic ally patchy dilation of the terminal branches of arterioles and congestion with varying grades of œdema of the tissues supplied by these branches. In short angioneuroses, nearly always caused by auto-infections, which frequently are of rheumatic nature.

In acute urticaria, the influence exerted by any direct treatment is difficult to determine. But subacute or chronic attacks of this disease are so distressing and difficult to deal with that room is always present for the experimental use of anything that promises a shortening of the attack. I have seen sometimes an apparently magical disappearance of the symptoms under the use of adrenalin in the doses I have recommended. If the remedy does not produce decided improvement in forty-eight hours, it will not do so at all.

Erythema multiforme, whatever may be its cause, usually will disappear in from two to six weeks, but I have known it to last for more than six months and cause much suffering under indifferent or vicious treatment. Any remedy to be esteemed of value in the treatment of a disease of this nature must be one that will either shorten its course or give relief to its most distressing symptoms.

Adrenalin chloride will, in a large number of these cases, reduce the severity of the attack and shorten its duration. But dependence must not be placed upon it alone to the exclusion of such agents as may be indicated for emptying the intestinal tract, the avoidance of irritating foods or drinks, and the direct combating of rheumatic influences when these are present as inciting causes of the attack.

CASE I. November 1, 1901. Mabel F., telephone operator. Patient of Dr. J. F. Stewart. Throat and tonsils congested. Knee and elbow joints painful. Temperature, 104 degrees F. General and well-marked erythema multiforme, gyrate on the neck, vesicular on face, macular on arms and body and nodular on legs and thighs.

Treatment: Aspirin 1.0 three times a day. Applications of 25 per cent. silver nitrate to tonsils. Lassar paste to the skin, and solution adrenalin chloride, minims ten every two hours. After the cessation of the fever on November 5th, the pepto-manganate of iron was added to the treatment. There was great cardiac depression in this case at the commencement. By the end of the third week she was able to return to her work. In January, 1902, she had a second attack of erythema which rapidly yielded to the same treatment.

CASE II. December 5th, 1902. Mrs. D., 36 years old. Erythema multiforme for eight months following miscarriage. Type: nodular on fore-arms legs and thighs, vesicular and macular on face, arms and body.

Treatment: A paste of prepared calamine, zinc oxide, powd. starch, lanoline, rose ointment aa. 10.0, rose water ad. 60.00 was spread on a mask and applied to the face. The arms and legs were enveloped in cloths kept moist with boro-salicylic solution. The paste was rubbed upon the rest of the body. Internally ten minims of solution of adrenalin chloride were given every second hour. This treatment lasted for eighteen days, when she was apparently well and returned to her home in Arizona. February 16, 1903, there was a recurrent outbreak of the erythema which speedily disappeared, so I was informed, under the same treatment.

CASE III. April 13, 1903. Christine O. Shop girl, 26 years old. Erythema multiforme of face and body following tonsillitis. No temperature. Duration, one week.

Treatment: Calomel purge. Locally calamine lotion, and internally ten minims solution adrenalin chloride 1-1000 every third hour. April 20th eruption has disappeared gradually, but entirely.

CASE IV. April 14, 1903. B. A. S. Broker, 44 years old. Erythema multiforme of papulo-macular type which itches severely. Origin of attack obscure. Duration, one week.

Treatment: Calomel purge and limited diet. Locally calamine lotion, internally adrenalin chloride every two hours. April 21: attack gradually and entirely disappeared.

CASE V. October 1, 1904. C. A. G., aged 24 years. General erythema multiforme. Large papular type on wrists, ankles and on neck, macular on face and chest, nodular on legs, vesicular on arms and some portion of the body. Temperature, 102 degrees, accompanied by rheumatic pains in the larger joints. Has had slight attacks rheumatism several times during the past few years, but no similar eruption.

Treatment: Calomel purge. Locally, 2 per cent. carbolic in calamine lotion. Internally, aspirin 0.5 every four hours with adrenalin chloride solution, ten minims every two hours. October 14: attack entirely abated, all erythema having disappeared and subjective symptoms ceased.

CASE VI. October 12, 1904. B. G., 26 years of age. Physician. Suddenly attacked with an erythema multiforme of the papulo-macular type with tendency to nodes on arms and legs. Itches and aches severely. Temperature, 101 degrees.

Treatment: Calomel purge. Aspirin 0.5 every four hours and adrenalin chloride solution, ten minims every two hours. Locally, salve containing 2 per cent. of anæsthesin. October 17: attack entirely disappeared.

Some cases of erythema multiforme are not benefited by adrenalin, but it is well worthy of trial in all cases. I expect to get some appreciable improvement in three days, but I do not look for a cure in that period.

I have also to report a case of leucoderma of the hands and face in which the prolonged use of adrenalin was extremely beneficial and is said to have produced a cure. As to the strict truth of this I cannot vouch as I had the person under observation for only three months, but the improvement in this time was remarkable. A report from the patient after nine months stated that her skin was natural in color again. She received five drops every three hours during the day for nine months.

Fear has been expressed by writers that prolonged use of this

drug will cause glycosuria. I have had persons use it for months and have made frequent analyses of their urine. I have never yet been able to detect the occurrence of sugar in the urine following its administration.

To explain the therapeutics of adrenalin in these purpuric cases it is sufficient to assume that the suprarenal capsules furnish to the blood an alkaloid, adrenalin or epinephrin which, by its presence, prevents leakage from terminal blood vessels of their contents, or exercising an inhibitory control upon the nerves regulating the dilation of arterioles prevents such leakage.

In Case I this function was seriously impaired by the condition of general arterial sclerosis and when added to this came the increased strain due to the intense dyspnœa, interstitial hæmorrhages very naturally followed.

In Case II the general lack of development of the child carried with it lack of suprarenal energy. When this element was furnished in sufficient quantities, normal blood vessel action immediately commenced and the purpuric condition disappeared.

In erythema multiforme and other angioneuroses there are also vasa-motor eccentricities which are not improbably due to impoverished or inhibited adrenal secretion following, perhaps, auto-intoxication, most often from rheumatism or digestive disturbances.

The furnishing of the lacking substance from without, restores the tone of the vessels, the ordinary physiological contraction and dilation of arterioles is reëstablished and the disease disappears.

EDITORIAL.

THE TREATMENT OF VARICOSE VEINS BY WALKING.

IN every dispensary the sufferer from varicose ulcer of the leg is not looked upon with any great enthusiasm by the surgeon, or indeed, by the dermatologist to whom the case is usually referred. This lack of enthusiasm arises not so much from the slow response to treatment, which is rational enough when based upon the principles of disinfection when infected, of stimulation when atonic, of curetting the borders when these are sclerosed; but from the impossibility of the patient to carry out the injunction of *rest and elevation of the limb to the horizontal position*. These patients are usually obliged to work for the support of others and to remain standing most of the day.

Leredde considers the streptococcus to be the exciting cause of most of these ulcers, which may be called "chancres streptococciques," but however that may be, the varicose veins are the predisposing cause and it is to the varicose veins that attention should be directed.

Compression of the veins as exerted by elastic stockings or bandaging, while relieving the œdema and diminishing the muscular infiltration, is only an expedient such as the crutch to the cripple. When removed the œdema returns, the veins are less resistant, and the muscles become atrophic.

Marchais (*Gazette des Hopitaux*, p. 1334, 1904), reasoning from the known favorable effect of muscular contraction in emptying the deep seated veins, which in turn mechanically favor an emptying of the tense superficial veins into the deep seated, recommends a careful massage of the muscles to be followed by a gradually increased daily effort at walking.

The only contra-indication which he recognizes is the existence of a true phlebitis, as shown by the local signs (redness, tension, œdema persistent in bed, pain), and the temperature, more or less marked but always present. In this case absolute rest is imperative.

Outside of infectious complications, the varicose veins are treated by a formal interdiction of elastic stockings or bandages. The patient is ordered never to remain standing, never to walk slowly, never to take prolonged warm or hot baths.

Cold shower or tub baths are prescribed with the aim of toning up the muscular system. Massage is recommended if there is pronounced œdema, pain, or cramps and kept up daily until the patient can walk briskly without pain. In the massage the veins are avoided, and "pétrissage" of the deep muscles is carried out to enable them to regain their functions and thereby benefit the veins. To be efficacious, walking must be done rapidly, 110 to 120 steps to the minute, and to stop and sit down as soon as fatigued. A slow walk allows the muscles to remain contracted a certain time and thereby produces an effect similar to standing. The first three or four days let the patient walk rapidly for only five or ten minutes at a time and repeat it a number of times a day until a total of one hour has been accomplished. The walks can be increased to a total of two and a half hours a day. These walks should be taken where a bench or seat may be found to rest. This treatment should be followed for two or three months and not forgetting that even when a favorable result has been obtained the patient remains subject to a diathesis and should continue to follow hygienic rules.

SOCIETY TRANSACTIONS.

BOSTON DERMATOLOGICAL SOCIETY.

October Meeting, 1904.

DR. HARVEY P. TOWLE in the Chair.

Dermatitis Herpetiformis in Children. Case I. Presented by Dr. J. T. BOWEN.

The first case was that of a little girl aged four. Her first attack began just a year ago and the patient was admitted to the Massachusetts General Hospital in December. At that time there appeared a bullous eruption about the mouth, eyes and ears, and on the abdomen, back, thighs and lower legs. The lesions began as vesicles which were oval, tense and filled with clear serum. These vesicles enlarged peripherally, drying in the center with the production of crusts. Surrounding these vesicles appeared a red halo which, as time went on, would give place to a zone filled with serum. The eruption consisted of such vesicles and bullæ, discrete or confluent, grouped or isolated.

During her first stay in the skin ward, lasting from December to the following June, there were periodic outbreaks of vesicles and bullæ as described above. The eyelids and oral and vulvar regions were particularly involved, the original vesicles varying in size from a pin-head to that of a large pea. From December 23d to 29th, the temperature varied from 100° F. in the morning to 102.5° in the evening. This rise in temperature was followed by a fresh eruption consisting of annular and linear lesions composed of closely aggregated and grouped vesicles and bullæ appearing generally over the body, but particularly emphasized about the mouth and on the back of the hands and on the abdomen.

At this time (just preceding the fresh outbreak) the blood count was as follows: Leucocytes, 21,500; polynuclears, 60 per cent.; lymphocytes, 19.5 per cent.; eosinophiles, 20.5 per cent. This examination is to be contrasted with that of December 9th, a period of quiescence, when the microscopical examination showed polynuclears, 49.5 per cent.; lymphocytes, 45.5 per cent., and eosinophiles, 4.5 per cent.

January showed a desultory eruption of scattered small lesions. February was a period of rest, but on March 4th, a new explosion of very tense bullæ occurred on one foot, both thighs, and on the upper lip. This outbreak was accompanied by pallor, anorexia and insomnia. This attack was again followed by a comparatively peaceful condition until June, when another eruption appeared generally over the surface but especially about the mouth, scalp, ears, back of hands and lower extremities.

On June 25th the patient was discharged in a very satisfactory condition, although the cutaneous surface still showed evidences of the disease.

During this stay in the hospital of six months the blood was repeatedly examined and the attending physicians soon learned to prophesy a fresh outbreak of vesicles by the antecedent rise of temperature and increase of leucocytes, which showed such high percentages of polynuclear and eosinophilic elements as were detailed above in the examination of December 23d.

The patient returned to the hospital on September 3d, and her mother reported that the skin had never been entirely free from lesions during the summer. At this time the lower half of the face appeared dull red in color and covered profusely with greasy, yellowish crusts. The upper right eyelid showed an erythematous condition with one bean-sized, crusting lesion. Over the left frontal region appeared an irregular, circumscribed patch, the size of a silver dollar, with slightly crusting edges. Throughout the scalp were similar crusting areas. The back of the right hand, exclusive of the fingers, was covered with erythematous and crusting lesions, while on the front of the arms two vesicles were present. The lower part of the abdomen presented a few bright red, slightly raised, confluent papules and scattered between them were many minute vesicles, discrete and grouped.

At this time the physical examination and the urine were negative. The blood contained 90 per cent. of hæmoglobin and the count showed leucocytes, 10,000, consisting of polynuclears, 64 per cent.; lymphocytes, 31, and eosinophiles, 5 per cent. No mast cells were visible.

The subsequent history to the present date has been a repetition of the child's first visit in the ward—periods of quiescence and of exacerbation.

Dermatitis Herpetiformis in Children. Case II. Presented by Dr. J. T. BOWEN.

The second case was that of a Jewish boy, æt. six, who had been free from skin diseases up to eight months ago, when the present bullous eruption first appeared on the upper lip followed by outbreaks on the forehead, back of the hands and abdomen.

At the time of entrance into the Massachusetts General Hospital on October 3d, lesions were present on the forehead, eyebrows, eyelids, cheeks, chin, mastoid region, lower arm, back of hands, pubes, scrotum, inner surface of thighs down to knees, lower legs to ankles and dorsum of the feet. These lesions consisted of yellowish crusts, some dry, others moist, discrete or confluent and lying upon a dry surface. Interspersed between these older conditions were isolated or confluent vesicles ranging in size from a pin's head to a pea. These vesicles seemed to spring from an almost normal skin with an occasional halo of erythema. They were rounded, tense and filled with a clear serum at first, which tended to grow turbid as the vesicle increased in age.

The physical examination and the urine revealed nothing abnormal. The blood showed two per cent. of eosinophiles.

Since entrance there have been periodic eruptions of vesicles which in some cases have soon developed into walnut-sized bullæ. Associated with these crises there has been pyrexia, usually of 101° F. but on one occasion of 103°. The patient has appeared well and apparently comfortable, jovial and contented.

Dr. JAMES C. WHITE said that these two cases were well-marked examples of dermatitis multiformis of young children, the hydroa puerorum of some writers. The disease was not so very rare at this age. Dr. White had seen five or six cases since the disease was first called to our attention by Dr. Duhring and in only one instance did the eruption of vesicles follow closely upon vaccination.

Dr. HARDING had seen four cases of this affection in young children, two of which were associated with vaccination.

Dr. C. J. WHITE alluded to a rather long correspondence between Dr. Duhring and himself in regard to the first case just reported by Dr. Bowen. Dr. Duhring was distinctly loathe to designate this disease by the title of dermatitis herpetiformis on account of the child's age, but as time went on and the various phases of the process developed, Dr. Duhring was finally compelled to allow the justness of the diagnosis. (At this time the child was only three years old.) Dr. White then reminded Dr. Bowen of another example of this affection which had entered the skin ward in Dr. Bowen's service. This was a very extraordinary example of the gyrate, erythema-multiforme type in a boy of three years. In conclusion, Dr. White spoke of still another very marked example of dermatitis herpetiformis of the usual vesico-bullous type which had entered in his service last September. This was in a girl of less than three years of age.

Dr. TOWLE referred to the multiplicity of the lesions in the second case in which the pustular element was strongly emphasized. At this time the temperature reached 102° F. but receded within twenty-four hours after the incision of the various pustules. Dr. Towle said that the high frequency current had been used lately in the cases shown by Dr. Bowen with coincident diminution in the formation of the bullæ but it was too early to state whether this was pure coincidence or whether this treatment was really beneficial.

A Case for Diagnosis. Presented by Dr. TOWLE.

The patient, Blanche C., æt. eighteen, appeared at the Massachusetts General Hospital on September 12th. The family physician accompanied the patient and stated that he had vaccinated her over the deltoid muscle two years previously. The inoculation went through the normal cycle and healed, but a few weeks later a red spot formed on the scar, broke down and gradually spread, forming a good-sized ulcer. This had been treated with black wash, Lassar's paste, curettage and by X-rays. Two months after the original vaccination another ulcer formed on the outer side of the bend of the elbow.

The patient, who was seen by Dr. C. J. White, was recommended to his service in the house and the following description is copied from the hospital records: On the outer aspect of the upper third of the left arm is an ulceration, irregularly circumscribed, about two and one-half inches in diameter. The first half-inch from the circumference of the ulcer is

superficial and with an apparently clean base. The edges are healthy and raised very slightly. The inner area, which has an irregular quadrilateral contour, has a bluish-yellow, necrotic hue. On the external side of the elbow is an elongated ulceration, one by two inches in diameter. In the neighborhood of the larger ulceration are several small scars.

Within a week after entrance under the constant application of bovine both ulcers had much improved. The necrotic appearance had disappeared; the smaller ulcer had practically healed, while the larger had decreased to the size of a quarter of a dollar. Two weeks later, however, the ulcerations had broken down again and in a few days they were as large as at the time of entrance of the patient, who at once asked to be sent home.

Five days afterwards she returned to the out-patient department, when it was recorded that the upper lesion had grown still larger and had coalesced with a newly-formed ulceration below the original one. The base of this newer ulcer was bright red, perfectly healthy looking and secreted an abundant, clear serum. The surface of the original sore was covered with a hæmorrhagic crust and the surrounding skin was somewhat livid in hue. Still further down the arm on the inner aspect was an ulcer, three-quarters of an inch in diameter, superficial in nature and with a healthy-looking base. At the bend of the elbow along the top of the scar formed from the earlier lesion appeared a narrow, superficial ulceration.

At the time of presentation—some three weeks later—the smaller two ulcers were healed, but the original large one remained wide and open practically as when first seen in September. There was also a new development present consisting of disseminated, pink, somewhat infiltrated, sensitive nodes extending, perhaps, two inches up and down the inner aspect of the arm over the seat of the deep vessels.

Dr. Post was unwilling to venture any suggestion as to the nature of the process.

Dr. Bowen was sure that syphilis, tuberculosis and epithelioma could be excluded and was inclined to think of the possibility of malingering. He noted that morning that the patient was rather enthusiastic over the appearance of the latest symptoms in her case, i.e., the lymphangitic (?) manifestations just alluded to.

Dr. JAMES C. WHITE said that he had not infrequently noted that the skin over and surrounding the site of a previous vaccination would refuse to heal for months after the operation as though the tissues had lost all capability of repair, just as we now see it after the undue action of the X-rays. He regarded these cases as due to the improper treatment of the vaccine lesion.

In this case, however, the exceptionally prolonged and extensive ulceration with the unusual shape and appearance of the lesion in the flexure of the arm would tend to support the suspicion expressed by Dr. Bowen that the whole process was artificial—an example of malingering.

Dr. C. J. WHITE regarded the fact that the lesions had yielded so rapidly to simple local applications while in the ward under his care as good evidence that the vitality of the tissues had been preserved, and he therefore considered malingering to be the most likely theory by which one could explain the conditions preceding and subsequent to the patient's sojourn in the hospital.

Dr. Towle said that he had at first thought of tuberculosis in this case, but the

ease of healing of the ulcers and their sharp and straight outlines together with the evident pleasure the patient evinced in the recurrence of the lesions made him now strongly disposed to regard the lesions as self-produced.

A Case for Diagnosis. Presented by Dr. C. MORTON SMITH.

The patient was a healthy-looking woman of thirty-five. The only history obtainable was that ten years ago she had had some cutaneous lesion removed from her chin by a competent surgeon. The wound had apparently healed satisfactorily and the scar had remained outwardly free from any sequelæ until one year ago, when the present nodules had formed and had remained quiescent ever since.

On examination one sees just above the protuberance of the chin in the median line a horizontal scar about one inch in length. At either end appears a hard, firm, elastic, round, elevated, pea-sized nodule rising some distance above the surface and covered with tensely-drawn skin, ivory-white in color except where the tissue is invaded by dark red capillaries. These lesions are somewhat painful to the touch. They have never ulcerated and under the application of a 33 per cent. aqueous solution of ichthyol the nodules seem to have decreased somewhat in volume.

Dr. C. J. WHITE was inclined toward the diagnosis of epithelioma but recognized the fact that such small tumors often presented unexpected and interesting pathological structure when examined under the microscope. He would therefore not commit himself to a positive opinion.

Drs. JAMES C. WHITE, BOWEN and HARDING agreed with this statement.

Dr. POST regarded the woman as rather young to be the subject of epithelioma and suggested the possibility of keloid.

Dr. SMITH was in accord with this view.

A Case of Multiple Keloid. Presented by Dr. C. MORTON SMITH.

The patient was exhibited a year ago by Dr. Bowen at the November meeting of the Society and reported later in this journal (vide Vol. XXII., p. 40). Briefly stated, the case was one of unusually large dumbbell-shaped keloids scattered over various parts of the body. The patient related that the first fibrous mass appeared at the time of her first pregnancy and that others had grown during successive child-bearing periods. Dr. J. C. White had suggested (at her first presentation to the Society) that these keloidal growths had been due to tearing of the corium coincident with the rapid increase in size and weight of the woman during and since her several pregnancies.

Since last November the woman had been exposed to the X-rays for two months and subsequently has allowed four operations for removal of the growths. At present the lesions have lost their previous dumbbell configuration and now consist of broad, raised, red, firm, elastic bands with outlying, parallel, circular keloids—the sites of the stitch holes of the recent operations.

Dr. BOWEN said that it was interesting to note the rapidity of recurrence after operation and that, in his opinion, the theory of infection was a plausible one.

Dr. JAMES C. WHITE felt that the X-ray had not been sufficiently tested and recommended a subsequent and thorough course of exposures.

Dr. TOWLE thought that X-rays had not proved themselves as efficacious as had been expected and said that he had gained better results from thiosinamin.

A Case of Dermatitis Medicamentosa. Presented by Dr. HARDING.

J. P., æt. twenty-nine, a brass-worker by trade, presented an abundant eruption of red, elevated, wheal-like, small and large papules over his face, upper arms, trunk, and to a lesser extent, on his lower arms and thighs. The facial lesions were flatter than elsewhere, while in his pharynx there was a marked redness.

The eruption was one day old and started on the back and chest and later spread to the extremities. The man had no signs of gonorrhœa and denied having taken any medicines for a week. Forty-eight hours before the appearance of the rash the man had partaken of a late supper of pickled pigs' feet and Bass' ale, but said that this was a favorite supper with him. The eruption was accompanied by mild pruritus and reacted to external irritation.

Dr. C. J. WHITE said that this was one of the eruptions which would be called by most observers dermatitis medicamentosa, but which was, in his opinion, really urticaria and he would regard the pigs' feet and ale as the causative factors. He further asked if it was proper to call an eruption dermatitis medicamentosa when the skin reacted to external irritation.

Dr. BOWEN favored the title of dermatitis medicamentosa.

Dr. POST said that the distribution of the eruption would tend to rule out a copaiba eruption.

Dr. SMITH said that he had seen the case that morning and that the lesions were brighter in color and more papular than one was wont to see in copaibal rashes.

Dr. JAMES C. WHITE thought that the lesions had every appearance of being due to ingesta, probably some drug. He would not call the eruption urticarial on account of the persistence of the lesions.

Dr. HARDING was pleased that the discussion had arisen. He said that the lesions had increased in extent since the morning. He felt that stomachic symptoms would be present if one were to consider the pigs' feet as the active agents in the production of the dermatitis. He would call the case dermatitis medicamentosa.

A Case for Diagnosis. Presented by Dr. TOWLE.

The patient was a man, about forty-five years of age, who presented an unusual eruption on the mucous membrane of the posterior half of the hard palate consisting of angular, almost pentagonal lesions so closely set that only a thin red line divided one from another, suggesting a pavement appearance. The lesions were quite discrete and showed no tendency toward coalescence. In color the lesions were grayish or silver-white and gave one the impression of containing fluid. Their tops were flattened and bore a pin's head depression in the center. To pressure they seemed elastic and not easily reduced in volume. According to the

man's story, the lesions were not at all sensitive and he had been quite ignorant of their presence until his attention had been drawn to them during a thorough physical examination for a supposed lung trouble.

When seen at a second visit the surface covered by the lesions had been decreased considerably by the rupture of the peripheral vesicles (?) from which oozed a small amount of clear fluid. Following this artificial rupture of the lesions appeared a shallow cavity covered by a thin layer of epidermis.

Dr. Howe felt that such lesions could be produced by excessive smoking.

Dr. C. J. WHITE said that the glistening, grayish top carrying, as it did, a central darker zone,—possibly a depression,—suggested to him the possibility of lymphangioma.

Dr. BOWEN noted a capillary dilatation on the surface of the lesions and considered this another factor favorable to the diagnosis of lymphangioma.

Drs. POST and SMITH were inclined to attribute the lesions to the irritation of dirt and tobacco.

A Case of Dermatitis Medicamentosa. Presented by Dr. A. POST.

A woman, *æt.* sixty, presented herself for treatment on account of a dozen thickly crusting lesions limited almost entirely to the forearms. On removing these crusts a shallow ulceration was visible covered with abundant pus. She said that she had had an attack of iritis two years ago and since last February had been bothered at repeated intervals by the crusting lesions described above.

The patient was given iodide of potash on Saturday. On the following Wednesday an eruption appeared on the hands. On Thursday and Friday sleep was impossible on account of the pain which accompanied the cutaneous outbreak.

To-night, eleven days after the first ingestion of the drug, there appears on the left palm a large, flat bulla lying under the thick horny layer of the skin, which has a deep, purplish-blue color. On the palmar surface of the fingers of the same hand one sees many small, irregularly-shaped, very flat, claret red bullæ.

Dr. G. F. HARDING regarded the case as an unusual example of iodism and spoke of a patient under his care who developed, four days after the administration of iodide of potash, marked purpura of the skin with œdema of the throat.

Dr. JAMES C. WHITE agreed as to the diagnosis of the secondary eruption but said that the original outbreak interested him as he had seen quite similar conditions arising from the presence of the acarus of scabies or of pediculi.

Dr. POST said that he looked upon the original lesions as due to syphilis complicated by pus, but that he had presented the case on account of the extremely localized iodide eruption which was interesting but not very unusual.

A Case of Fibroma Molluscum. Presented by Dr. SMITH.

Maria B., *æt.* twenty-three, single, was born in Ireland and came to Boston three weeks ago. She was well developed but had never menstruated. She looked and was in reality mentally dull. The patient did

not know when the first tumor appeared but her sister affirmed that none was present six years ago. The pigmented lesions began about two years ago.

To-day there appears at the base of the skull an egg-sized, soft, elastic tumor and scattered over her whole body one notes a limited number of soft, easily-compressible masses typical of the disease, accompanied by many variously-sized, coffee-colored macules.

A Case for Diagnosis. Presented by Dr. TOWLE.

The patient was an American, aged forty-one, who four months ago had noticed upon his abdomen an eruption which he attributed to hot baths. Subjectively he complained of a slight itching. Upon examination the man presented across his abdomen symmetrically disposed patches, discrete and circular, or confluent and band-like. They were of a red color which disappeared somewhat on pressure. The skin over these lesions was slightly thickened, dry and scaly. The abdominal areas were about one and one-half inches in diameter, but upon the arms there were similar but smaller lesions. Treatment has thus far been unsatisfactory.

Dr. BOWEN classed this dermatosis among the rather large and obscure scaling eruptions which are so difficult to designate absolutely. The present case suggested *erythrodermie pityriasique en plaques disséminées*, but the individual lesions were perhaps too small and the duration was possibly too short to permit such a conclusion.

Dr. C. J. WHITE considered the lesions too much infiltrated and too scaly and too brilliant a red to allow of this diagnosis and he considered also the pruritus too strongly marked. He would call this case *eczema seborrhoicum*.

Dr. JAMES C. WHITE thought that the diagnosis of *erythrodermie pityriasique en plaques disséminées* was a rational one but admitted that the patches were perhaps a little more sharply defined and infiltrated than the cases which he previously reported.

Dr. TOWLE thought that the lesions were too infiltrated to permit this diagnosis and he was rather inclined to call the disease *eczema seborrhoicum*.

CHARLES J. WHITE, *Secretary*.

NEW YORK DERMATOLOGICAL SOCIETY,

Regular Meeting Held October 25, 1904.

DR. GEORGE HENRY FOX, Chairman.

A Case of Lupus.

Dr. CHARLES W. ALLEN presented a little girl, six years old, who had been under treatment for eight or nine months for three distinct patches of lupus. The one near the angle of the mouth was nearly the size of a fifty-cent piece. Those in the neck were connected with the cervical glands. There was another patch of lupus beneath the chin. X-ray treatment was applied until improvement became manifest and then the ultra-violet ray with the Piffard lamp. He also occasionally curetted nodules

in the scar and the result of this combined treatment had been very good. The condition had existed for two years. There is now a soft scar with no evidence of disease.

A Case of Hodgkin's Disease with Peculiar Eruption. Presented by
Dr. E. B. BRONSON.

The patient had been shown to the Society at the October meeting of last year (JOURN. OF CUTANEOUS DISEASES, Vol. XXI., p. 562). It would be remembered that the patient had been treated very successfully by Dr. Finch with X-rays. A few months ago there was some return of glandular enlargement in the neck for which the irradiations were resumed and at present the glands were apparently reduced to normal size again. A month or more ago an eruption was first noticed upon the trunk and extremities on account of which and of its possible relation to the disease the case was presented now. When first seen by Dr. B. some ten days before, the appearances presented were much more marked than at present. They consisted of lesions somewhat resembling patches of eczema seborrhoicum. They occurred in isolated places irregularly distributed over the trunk and extremities, in all not over ten or a dozen in number. They were mostly of a dull red color, not markedly inflammatory, many of them covered by scales that were adherent. They varied in size, from five to fifteen centimeters in diameter. There was some itching attending them but not very troublesome. In all there was evidence of thickening not extending apparently below the corium which was very perceptible when the lesions were pinched between the thumb and finger. The infiltration was much more decided than in any ordinary case of eczema seborrhoicum. There were no lesions either on the scalp or chest. In the last week or two there had been considerable retrogression of the lesions. The patient's general condition seemed good, although his complexion was sallow and rather pallid. There was no leucocytosis and no noticeable enlargement of liver or spleen.

Dr. JOHN A. FORDYCE did not know whether the eruption was due to the pseudo-leukæmia or not. This could best be decided by cutting out a section and making a microscopical examination of it.

Dr. CHARLES W. ALLEN said that the eruption did not correspond to any of those found in the skin diseases he knew of. It was not in any way typical, and he believed it was fair to assume that it belonged, in some way, to the general disease.

Dr. BRONSON in closing referred to a case of mycosis fungoides and leukæmia reported by Pelagatti in the last (October) number of the *Monatshefte für praktische Dermatologie*, in which an eruption was described with illustrations that somewhat resembled the one just presented. In Pelagatti's case the manifestations of mycosis fungoides eventually developed and the query arose whether in this case of pseudo-leukæmia, a similar transformation might occur.

An Unusual Case of Lichen Planus.

Dr. L. DUNCAN BULKLEY presented a patient with unusual lesions of lichen planus. The man was forty-eight years old and had had the erup-

tion two years. Beginning on the wrists it had persisted and increased up to the present time.

On the wrists there were many of the characteristic lesions, but also some very peculiarly ringed, and nearly an inch in size. On the feet, both on the dorsal surfaces and on the sides, there were many ringed lesions, of a purplish color, some of these nearly two inches in diameter, and very suggestive of syphilis. The centers were cleared, and brownish, the marginal ring being perhaps a quarter of an inch in width. There were also characteristic patches of lichen planus on the sides of the buccal cavity.

He called attention to the fact that the rings were not composed of separate papules, but had evidently enlarged from smaller lesions, like psoriasis, a process somewhat different from that ordinarily ascribed to lichen planus.

Dr. JOHN A. FORDYCE said that there was no question regarding the diagnosis of lichen planus. The appearance of the mucous membrane was quite characteristic.

Dr. BULKLEY said that the question raised by Dr. Fox was the one he wished to have discussed and he asked for an expression of opinion from the Society: Was the ringed lesion the result of the spreading of one lesion, or was it due to the coalescence of various lesions?

Dr. ANDREW R. ROBINSON referred to a case that was published in the *Cutaneous and Genito-Urinary Journal* in which one lesion spread peripherally about the ankle, attaining a size from one-half to three-quarters of an inch in diameter.

Dr. ROBERT W. TAYLOR said he had seen that on the penis, the external portion of the prepuce, on the glands and upon the scrotum. The ring was formed by one lesion which spread.

Dr. CHARLES W. ALLEN said that he believed he had seen similar lesions upon the feet and he could see no great difference between the circular, crater-like lesions on the wrist and those on the feet except that those on the feet were larger, smoother, older and browner. They had all the same characteristics as those found on the wrist but were not so recent. So far as the condition of the mucous membrane was concerned he had seen a number of times lesions in the mouth and on the tongue of similar nature in patients with lichen planus. One occasionally saw in lichen planus bullæ of considerable size; when these disappeared there were left lesions which were hard, firm and infiltrated, and which might occupy an area larger than the original papular eruption which one usually saw at the beginning of a typical lichen planus lesion. That patch might take on the characteristics of the ringed patches presented in Dr. Bulkley's patient. If one would take a given recent typical patch of lichen planus and spark it with a high frequency current little subcutaneous blood points will appear indicating an extension of the process beyond what one would see clinically. In time the disease was apt to develop at the periphery and individual lesions will appear where these blood points came out. If the spark was used one might destroy and cure the patch. The same thing could be done by curettage when this was done superficially, making little hemorrhagic spots come out in the neighborhood where the lesions were about to form. In a gross way one could see how this process might cause a seeming extension at the periphery. They were practically new satellites but it would look as though spreading had occurred by continuity of tissue as in ringworm. He had employed this procedure hundreds of times both with curettage and high frequency sparks.

Dr. PIFFARD asked what kind of high frequency spark Dr. Allen had used.

Dr. ALLEN replied that it was the Piffard apparatus.

Dr. HENRY G. PIFFARD said that although his hyperstatic was a high frequency

current it would be better not to designate it as such because the latter name had been universally applied to the D'Arsonval currents. Although both were high frequencies they gave quite different effects.

Dr. ELLIOT asked Dr. Allen if he had not sparked the lichen planus lesions, did he think the hæmorrhagic satellites would have appeared?

Dr. ALLEN replied in the affirmative. In other cases when sparking had not been employed he had seen satellites appear all around the old lesions. If sparking be employed you prevent these lesions from appearing. The development of the lesion would be arrested by curetting and causing bleeding into the tissues. The condition could be prevented from extending by producing hæmorrhage in the papule and transforming it into a blood blister which will cure the individual lesions. He said that if one took one hundred papules and curetted or sparked them, a very large proportion of them would not develop further. To his mind it was clear how lesions of this nature seemed to grow larger.

Dr. ROBERT W. TAYLOR asked if most of the gentlemen present considered lichen planus to be a bullous or a pustular affection.

Dr. ALLEN replied that it was to be considered at times as a bullous affection but practically never as pustular.

Dr. TAYLOR said he had never seen anything of the kind and had been startled at Dr. Allen's statement.

Dr. GEORGE HENRY FOX had recently seen a case which represented the bullous form of lichen planus. He wished that Dr. Allen would show such a case.

Dr. ALLEN replied that he had shown one at the February meeting in which but very little interest, however, appeared to have been taken.

Dr. MEWBORN remembered that case as one of lichen planus in which the claim was made that if the lesions were rubbed bullæ would develop.

Dr. ALLEN said that bullæ had occurred in this patient, among other places at the point where the shoe-buttons had pressed. Dr. Allen referred to a case of bullous lichen planus shown at the Berlin Congress—a most beautiful example of the condition.

Dr. ELLIOT said that bullous lesions in lichen planus he had never seen. Kaposi said that few such cases occurred and called them accidental phenomena. Bullæ might occur in erysipelas, or in urticaria, but so far as being an integral part of the disease he could not regard it. It was only an epi-phenomenon.

Dr. ALLEN thought the explanation to be as simple as A, B, C, and asked the members to take the next case and see how readily, with patience and care, they could transform it into a bullous disease.

Dr. ELLIOT said that would be the result of an irritation process; the rubbing might cause an *individual lesion* to develop a bulla, but that did not constitute the disease a bullous one.

Dr. ELLIOT said he was not speaking of irritation bullous lesions, but lichen planus being a bullous disease, as Dr. Allen had claimed.

Dr. HERMANN G. KLOTZ said he had seen bullæ in cases of lichen planus of the leg but they had impressed him rather as being due to pressure and rubbing. He could not convince himself that a lichen planus lesion would develop on the site of the bullous eruption, and that the bullæ were really a part of the lichen process.

Dr. L. DUNCAN BULKLEY, in closing discussion, said that he had shown the case partly to bring up a discussion on whether these lesions did extend. If so, then the definition of lichen planus must be altered if they extended at the periphery like psoriasis, and developed to a size very much larger than commonly seen. The development within the mouth he thought to be quite interesting.

A Case of Lupus of the Lobe of Ear.

Dr. CHARLES W. ALLEN presented a woman who came to him March 19, with lupus of the ear which had begun when she was nine years old.

It had been treated at various times and by various physicians. The whole lobe of the ear was involved and the process extended up from the side of the ear and involved the tissues back of the ear. The treatment employed had chiefly been with the X-ray. When the nodules appeared in the cicatrix he bored them out and applied the rays again.

The history given he believed to be a very important one. He said he had had two other such cases in which the infection dated from the time of piercing the ears in a faulty manner. In the patient presented, the history given was that her ears had been pierced by an aunt with a needle and thread which she had drawn through her mouth to moisten, and that shortly afterwards her aunt had died of tuberculosis ("hasty consumption"). This made three cases in which the mode of infection had been traced by Dr. Allen in the same way so far as the history went.

Dr. HENRY G. PIFFARD said that he had been treating for one year, with some intermissions, a case of lupus vulgaris of the ear which had appeared after ear-piercing. Whether this had anything to do with it or not he did not know, for he did not find the tubercle bacilli. The treatment employed was various. The position of the disease was such that he could not use the X-ray so he radiated it with different things. He used the ultra-violet rays with some advantage and without producing any marked reaction of the surface. He also used radium (10 milligrams pure radium bromide), applying this from one-half to one hour at a sitting. He also used the new rays which he described to the Society last May (*JOURNAL OF CUTANEOUS DISEASES*, June, 1904), and this produced more reaction in ten minutes than the radium did in one hour. The patient was very anxious to have this treatment continued. Two weeks ago he again applied these rays to the back of the ear for fifteen minutes and told her to return in one week's time. The patient returned at the end of two weeks and he found an ulcer occupying the site of the lupus infiltration. In other words, it appeared as though the lupus infiltration had been destroyed and dropped out. In this instance he had found these rays had produced a reaction more quickly and deeper from the same length of exposure than anything he had as yet experimented with in the way of rays. Of course the X-rays tube gave more radiation than could be had with any appliance in connection with the new rays.

Dr. SHERWELL congratulated the Society on the optimistic opinions expressed, as to long continued and frequently permanent relief of lupus. He had long had that opinion, but personally well remembered that this Society and the American Dermatological Association held decidedly pessimistic views not many years ago on the therapy of this disease.

In his opinion,—and it has been asserted and exemplified to-night,—many methods, the X and other photographic rays, ordinary surgical treatment, the burr, the use of caustics, etc., have all been attended with good and other apparently permanent results. He (Dr. S.) had, however, not felt the necessity of changing his own mode of treatment, that of the thorough curettage followed by application more or less pronounced of the solution of the acid nitrate of mercury. He scarcely saw the advantage of the method of using this latter as recommended by Unna, that of soaking small, pointed, pieces of stick into this solution, and allowing them to remain in the lupus nodules; it did not seem as a surgical or as a practical method.

Dr. ELLIOT wished to call attention to the interesting and peculiar feature in the case presented by Dr. Allen, and that was that the condition was stated to have remained localized, with scarcely any destruction of the lobe of the ear, for

thirty-six years. The disease began at the age of nine and the patient was now forty-five years old. He thought this was remarkable.

Dr. ALLEN replied that the patient had been previously treated by various methods. The condition had remained localized but it had been fought all these years. There was little of the lobe left. The lobe had been infiltrated with lupus through and through. It seemed that the treatment had caused the substitution in a measure of the lupous tissue with healthy tissue. He said that he had not promised the patient that the lupus would not return. Dr. Allen referred to twenty cases of lupus he had seen that had been sent from Copenhagen to the Berlin Congress after having undergone the Finsen treatment. Some of these showed that, in spite of treatment, the condition was prone to return, but this in no wise invalidated the method as probably the best known.

Dr. ELLIOT asked if this treatment really gave better results than former methods of treatment; this was the important question. He believed that the X-ray, and all the new rays, to be still under trial.

Dr. PIFFARD did not believe there was any "best treatment" for lupus; the best treatment for one case would not be the best treatment for another case. The whole thing in the treatment of lupus, when boiled down, was the absolute and thorough destruction of the lesions and he believed it was a question of mechanics how to procure that destruction. If the patch be large then the carbon-arc or the Finsen or X-ray might be used; but if the lesion was small and permission could be obtained to cut it out that would be the better treatment. Destroy it and that was really the end of it. He referred to a case in which there was much wasted energy. A lady came to him with a lesion of the nose. She had been under X-ray treatment and the lesion healed but recurred. Altogether eighty-one applications were made but the lesion persisted in returning. The lesion was not larger than the nail of the little finger. He used the curette and actual cautery and he did not believe the condition now would return. In this case the X-ray treatment was wasted energy; because positive results could have been obtained by a five minutes' operation.

Dr. PRINCE A. MORROW referred to two cases of lupus of the face which were seen by him at the New York Hospital. One had existed for twenty-five years and extended over the entire cheek. This patient he had reported at Dr. Bulkeley's house three years ago. The other case has lesions around the mouth and a patch on the cheek. This patient, Mrs. Farley, was apparently cured two or three times with the galvano-cautery, but the disease was very persistent and was confined to that location. At the same time there was quite a patch of lupus on the back of the shoulder which was thoroughly curetted and cauterized six years ago without any return.

The point he wished to bring out was that the woman with lesions on the side of the face which extended to the scalp and external ear, and who had been treated at intervals for two or three years, had been benefited very much. Whereas the lady with lesions around the mouth who had had the X-rays applied, was seen by him last winter with an extraordinary multiplication of the lesions, which then extended all over the face, forehead, eyelids, and was one of the most extensive developments of the disease that he had ever seen. It was quite remarkable that the condition came on after a sharp attack of erysipelas. The general impression held was that erysipelas modified the disease but, in this case, it seemed to occasion an extraordinary development. The treatment with the X-rays was continued for two years; then she had some intercurrent trouble and two or three months ago she died. The other woman referred to was entirely cured of her disease. Both these cases had been under observation for a number of years and both progressed favorably up to a certain point. One had the X-ray applied with decided aggravation, while the other, a most delicate woman, apparently got well.

Dr. MORROW asked if any present had noted whether there was any modification or more rapid cures of these cases during the warm than during the cold weather. In many cases he had found that he could accomplish more during the three months of summer than during six months of winter. He did not believe there was any doubt regarding seasonal effects on these patients.

Dr. ELLIOT said that, concerning the effects of the X-ray, he had reported a case last winter of mycosis which had disappeared under the X-ray treatment. Dr. JACKSON had also seen this case. A report received recently from her physician stated that there had been from time to time slight outbreaks, which had been controlled. There was now no mycosis but a very diffuse erythroderma with desquamation and intense pruritus and when the X-ray was applied burns occurred very easily, no matter how short the exposure or how mild the current. Here was a case in which the mycosis might be cured, but was the condition set up a result of the X-ray exposures over a very long period of time? If so, it was certainly a most unfortunate one.

Dr. PIFFARD said that some time ago he took a little radium and mixed it with varnish and placed it on an aluminum disc of about one-half to three-quarters inches in diameter but with an activity of 250 only and placed this upon his arm. After twenty-four hours there was a slight reaction. Since then he had had a plate of celluloid with a 10,000 activity, but this he had not yet applied to his own skin because he wished to wait until he could apply polonium and see which had the greater effect. Polonium could be obtained free and in large quantities. Dr. Piffard then showed the effects of both radium and polonium on the electroscope which acted very promptly, and he stated that polonium would act as promptly as some of the higher grades of radium.

A New Applicator.

Dr. JACKSON showed some butcher skewers which could be purchased at a very small price and used as applicators.

A New Method of Measuring Skin Lesions.

Dr. JACKSON also presented a carpenter's calipers with measuring scale which could be used for measuring lesions of the skin, thus doing away with the very inexact statement of the size of a lesion by comparing it to a millet, lentil, and the like.

Dr. ALLEN said that same time ago he was struck with the importance of having some means by which the size of lesions could be communicated to readers and he went to the trouble of getting up such a scheme. The scale was founded on a scientific principle, the metric system being employed and it being a graded scales of circles of definite diameter.

Dr. MEWBORN suggested the ordinary copper cent as a convenient means of recalling dimensions in the metric system. A United States copper is *approximately* one millimeter thick and nineteen millimeters in diameter, or just one millimeter less than two centimeters in diameter.

A. D. MEWBORN,
Secretary.

REVIEW of DERMATOLOGY AND SYPHILIS

Under the Charge of JOHN T. BOWEN, M.D.

LEPROSY NOTES.

By ISADORE DYER, M.D., New Orleans.

NERVE LEPROSY. Raymond (*Archiv. de Neurol.*, Aug., 1904), describes two cases of typical nerve leprosy, one from New Caledonia, the other from Indo-China. The clinical picture of the two was the same: itching of the nostrils, numbness in the extremities followed by paralysis of certain muscle groups; diminution in the volume of the extremity; simian hand; red-brown patchy coloration of the skin in the affected area; loss of all sensation; loss of the stereognostic sense; marked thickening of the nerve trunks, some of which were irregularly nodulated or moniliform; diminution of electrical reactions; considerable trophic disturbance in the shape of dry skin, bullæ and old cicatrices on fingers and toes; loss of tendon reflexes, etc.

He gives a differential diagnosis from syringomyelia, interstitial hypertrophic neuritis, and Aran Duchenne muscular atrophy. As for Morvan's disease, the author holds very logically that his two patients were suffering from the syndrome or symptom complex of Morvan (paresis, analgesia, trophic disturbance), but that it is common to several conditions including some forms of syringomyelia and some forms of leprosy.

LEPROSY AND SYRINGOMYELIA. Gerber and Rudolf (*Arb. aus dem Neurolog. Institute der Wiener Universitat H.*, IX.) report a case, the only one on record, where the lesions of the two diseases were combined. Zambaco Pascha, in 1892, drew attention to the prevalence of leprosy in that part of Brittany where Morvan's disease was first recognized. He pointed out that some cases which have been classed as Morvan's disease were examples of the former affection and advanced the view that syringomyelia and Morvan's disease were *formes frustes* of leprosy, a disease which at one time had probably a much wider territorial distribution than is the case at the present day.

The anatomical examination of a large number of cases of leprosy by Laehr and others seems, however, to have definitely shown that the two diseases, syringomyelia and leprosy, are each associated with a distinctive morbid anatomy.

According to the authors, there are only three cases in the literature where a diagnosis of leprosy was made during life, and syringomyelia found post mortem.

Their patient was a woman *aet.* eighty-seven, who presented the motor, sensory and trophic changes characteristic of the type of Morvan. A peculiar deformity of the nose as well as striking skin changes suggested that the case might be one of those of leprosy which have not infrequently been erroneously diagnosed as syringomyelia.

The patient died three months after her admission. The anatomical examination showed central gliosis extending its whole length with a cavity in the cord from the level of the second cervical to the second dorsal segment.

The bacillus of leprosy was found in the skin changes in considerable numbers.

They regard the occurrence of the two diseases in the same patient as accidental.

MR. A. C. HAESELBARTH, Supervisor of Public Charities of Porto Rico, recently visited New Orleans and the Louisiana Leper Home at Indian Camp. He was much impressed with the system of the home and with results obtained in treatment. He remarked the general contentment of the inmates and spoke of the impression created upon him by the number of white subjects of the disease; in Porto Rico almost all the inmates of the government asylum were negroes.

LEPROSY ARRESTED. One patient, a boy of fourteen, has been discharged from the Louisiana Leper Home, free of evidences of the disease. He has had no signs for over one year and on the recommendation of the medical staff the Board discharged the boy; he is to be kept under observation.

TREATMENT OF LEPROSY. From Guadeloupe, Dr. Noel (*Lepra*, Vol. IV., fasc. 4, 1904,) gives the history of leprosy in Guadeloupe, details methods of isolation practiced and speaks of marked amelioration in most cases from the internal administration of the following:

Chaulmoogra oil.....	3.
Gynocardic acid.....	1.20
Sulphate of strychnin.....	.01
Calcined magnesium.....	.20
Gum Arabic.....	9.
Divide in twenty-four pills.	

Beginning with four to six pills with the principal meal, as many as twenty-four pills are reached per day.

In Guadeloupe provision has been made for lepers for nearly two hundred years. Isolation is entirely voluntary. There is no belief in heredity, but proof of contagiousness. The best treatment has been obtained with Chaulmoogra oil and strychnin.

LEPROSY IN THE PHILIPPINES. At last report available (for 1902) there were 3,288 recorded in the Philippine islands. There were twenty-six cases in 1903 on the Island of Guam.

LEPRA BACILLUS, CULTIVATION OF. Rost (*Ind. Med. Gazette*, 1904, May, p. 167, and June, p. 203) claims that by using a special medium he has succeeded in cultivating the leprosy-bacillus, and with the cultures has prepared an inoculating fluid for the treatment of the disease.

"For certain reasons, which he does not state, he has come to the conclusion that the leprosy-bacillus is what he terms 'achloreitic,' i.e., will not grow in the presence of salts of chlorine. The special medium is

prepared either by distilling beef-extract and using the distillate, or by dialysing nutrient agar (in hot distilled water) or beef or fish broth. Another method employed by Rost is to soak pieces of pumice stone in beef extract, place these in bottles through which a current of superheated steam can be passed, the steam then passing through a condenser; the liquid so obtained forms the culture-medium. In order to prepare the 'leproin,' as the inoculating fluid is termed, flasks of the special medium are inoculated, incubated at 37° C. from four to six weeks, the culture passed through a sterile Chamberland filter, reduced to about one-tenth of the original volume by evaporation *in vacuo* over sulphuric acid, mixed with an equal quantity of glycerine, and kept on ice until required. Ten cubic centimeters of such leproin will cause a violent reaction in a case of leprosy, the temperature rising to 104° F. and the patches becoming red, hot, and swollen. Thirty-five cases of leprosy have been treated with the leproin, one to four injections being given at intervals of a fortnight, and in most the injections have been followed by very marked improvement, ulcers healing, sensation returning, etc. It is too early yet to state the ultimate result of this mode of treatment, but it seems promising."—*The Practitioner*.

THE TREATMENT OF SYPHILIS.

By. F. J. LEVISEUR, M.D., New York.

Infantile Syphilis, The Treatment of. (*Journal des Praticiens*, N. 28, 1904.)

Infants stand mercurial inunctions very nicely. Two grammes of blue ointment should be rubbed in every morning for five minutes by aid of a piece of flannel. Beginning on the abdomen a different region is selected for each day. This treatment is carried out for one month, then stopped for one week and taken up again after this rest. Local lesions should be dressed with ammoniated mercury salve (10 per cent.). One year of inunctions is followed by the administration of potassium iodide (grs. x. t. i. d.) for three weeks. Every three months inunctions are again given for two weeks.

Contribution to the Technique of Intramuscular Injections. SIEGFRIED GROSZ. (*Archiv. für Derm. u. Syph.*, Band LXXII., 1 Heft.)

The drawbacks of intermuscular injections are: local pain, infiltrations, indurations, softening of the tissues, hæmorrhages and finally embolism of the lungs. Since the use of better preparations and the observance of antiseptic precautions these complications are of less frequent occurrence. The addition of cocain, orthoform and similar anæsthetics has no practical advantage. The question in which locality the intramuscular deposit of mercury should be injected is of great importance and has been studied in detail by the author with the aid of post-mortem experiments. A system of lines was mapped out on the gluteal region of

the cadaver so that certain points were designated and could afterwards easily be referred to. At these points injections of 1 c. c. of blue gelatine were made, care being taken to inject also the space occupied by the needle while withdrawing the latter. The length of the needle was 3 to $3\frac{1}{2}$ c. m. An accompanying drawing shows the system of lines mentioned above with twelve different points where injections were made and their action on the surrounding tissues carefully investigated. As a result of these observations the author recommends for intramuscular injections a triangle the points of which are represented by No. VI., IX. and X. No. VI. is in a horizontal line connecting both trochanters, in the middle between the *tuberositas ischi* and the trochanter. No. IX lies in the same sagittal line in the middle between VI. and a horizontal line connecting both *spinal anteriores superiores*. X. is located on a level with IX. in the center between the trochanter and the *crena ani*. The needle should not be pushed in simply in a vertical direction, but as soon as the resistance of the muscular tissue is felt, the needle should be diverted from outwards and below to inwards and above. In this manner the injected fluid will be deposited within the musculus gluteus maximus and has a chance to spread along its oblique striation. In patients with a great deal of adipose tissue much longer needles have to be used.

The inflammation of the muscular and fibrous tissues varies according to the quantity and quality of the preparation injected. Soluble salts produce changes which differ only in degree from those caused by insoluble salts. The reaction is always milder in regions where the structure of the muscle allows the injection fluid to spread over a large area, or where it has a chance to descend with ease into deeper parts. The main point, after all, is to be sure to deposit the injection within the gluteus maximus muscle.

"*La fossette rétro-trochantérienne*" or the point described by Smirnoff, has this disadvantage, that the injection is liable to spread between the gluteus maximus and medius or even get in dangerous proximity to the hip joint.

Galliot's point is not to be recommended. Barthélemy's point, which is identical with point X. of the author, is a very favorable one for the injection.

According to Dopter and Tanton, the "*Zone dangereuse*" for the nervus ischiadicus is situated in a line which begins an inch above the spina posterior superior and extends to the intersection of the gluteal fold with a line representing the continuation of the longitudinal axis of the femur.

The author finally quotes Möller's injection—experimented on the cadaver. Möller's advice is to inject into that part of the gluteal region which lies above a horizontal line skirting the upper point of the trochanter. Jadassohn prefers the external and superior quadrant of the gluteal region. This includes the fossa trochanterica, which should be avoided.

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FORDYCE'S DISEASE.

By CHARLES J. WHITE, M.D.

Instructor in Dermatology in Harvard University.

ON August 4th, 1904, Henry F., a Russian Jew, æt. thirty-four and a tailor by trade, came to the Massachusetts General Hospital on account of a peculiar eruption which he had noticed on the lips. He said that he was in a public drinking place sixteen days previously and had pricked his lip with a pickle fork which was used by the frequenters of the bar-room. The following morning he found on awakening that his lips were stuck together and on looking in the mirror he discovered the yellow lesions which had brought him to the clinic.

On examination it was seen that there was a single or multiple line of light buff, fawn colored, café au lait, irregularly rounded maculo-papules about the size of a pin's head and not appreciably raised above the level of the mucous membrane of the vermilion border of the upper lip. On the lower lip there were isolated lesions which suggested occlusions of sebaceous follicles analogous to milia. On the mucous membrane of the mouth, corresponding to an empty tooth space, appeared an area of closely aggregated, buff-colored maculo-papules. Above and along the line of the upper teeth there was a continuous line of densely massed, sharply bounded macules limited, however, to the right side. Along the lower dental line the man showed several widely scattered small and large papules which he could distinctly appreciate with his tongue.

The patient thought that as a boy he was free from acne, but his nose showed a universal dilatation and plugging of the sebaceous orifices and near the left eye there was a group of six or seven milia. He said that he suffered occasionally from a sour condition of the stomach, headaches and constipation, but was otherwise well. He was apparently a very moderate smoker and drinker.

The man was given salol and a mild wash as a placebo. Five days

later he returned, but the lips remained unchanged, and an ointment of resorcin 8, precipitated sulphur 2, oxide of zinc 2, and lard 32, was recommended. Ten days later he again appeared and this time his upper lip was desquamating along its entire length, while the lower lip showed several minute, pearly white, macerated areas, probably the seat of the earlier lesions. Finally, one week later, under continued treatment, the lip still remained excoriated but showed none of the previously existing Fordyce lesions.

I do not accept the man's theory of the origin of his present disease. I interpret the trauma simply as an accident which drew his attention to his buccal mucous membrane where he discovered a benign affection which might have been present for years. The patient allowed me to have one of the larger lesions excised from the upper lip for histological examination, the report of which will be found later in its appropriate place.

This first encounter with this rather ignored disease led me to examine all the new patients who came to my clinic and to my office. Between August 15th and October 1st, 540 new dermatological cases were seen at the hospital and out of this number 50 individuals, or approximately $9\frac{3}{4}$ per cent., revealed this condition, while during the same interval 14 cases of the disease were seen in private practice.

Before giving the details of my investigations it will be well to review the rather meager literature of this disease.

In 1896 Fordyce first drew our attention to this hitherto unrecorded condition. His patient was a physician who showed small, closely aggregated, milium-like bodies of light yellow color just below the surface epithelium. There were many lesions on the upper lip, fewer on the lower, and along the interdental line of the mouth they were also present, in the latter region becoming more papillomatous. These lesions simulated milia but could not be expressed after incision. They produced no subjective symptoms apart from a slight feeling of immobility and occasional sensations of burning and itching. This patient, on returning home, found that all of his family were similarly affected and that many of his clientele, including fifty per cent. of his negro patients, bore these hitherto unobserved lesions on their mucous membranes. Fordyce, after further investigation, discovered several cases in his clinic, one with combined seborrheic eczema and alopecia and another in a syphilitic patient. Pathologically, Fordyce noted that the epidermis was thickened, the outer layer approaching in structure the nucleated horny layer of the skin (parakeratosis). Acanthosis was present; the stratum germinativum was normal, but

the more superficial rete cells showed cytoplasmic changes, while the nuclei remained intact. Perinuclear halos were present and the cytoplasm appeared granular and glistening. Lustgarten regarded these changes as analogous to the normal granular metamorphosis of the epidermis and Fordyce considered these lesions too numerous to be attributed to the presence of underlying glands.

Allen,² in 1897, was the next observer to record a case of this disease. He presented a patient with milium-like bodies on his upper lip but Lustgarten did not agree to the identity of the two diseases. Allen's case showed lesions less yellow, less regular in outline and more superficial. At this meeting Fordyce added about a dozen new observations to his previous list, in two or three of which eczema seborrhoicum of the scalp was present.

D. W. Montgomery and Hay,³ in 1897, noted many cases of curious yellow discolorations occurring chiefly on the vermilion border of the lips and along the interdental line of the cheek pouch. These lesions were pin-head or less in size, discrete, dull yellow in color and usually not elevated enough to be called papules. They were generally unknown to the patients who, with the exception of one infant, were adults. Two cases were examined histologically and both showed the tumors to consist of lobulated sebaceous glands.

In 1898, Delblanco⁴ demonstrated a male syphilitic patient, aged thirty-seven, who showed the mucous membrane, opposite both rows of teeth on the right side, closely aggregated, yellow, dome-shaped nodules varying in size from a lentil to a pin's head. Similar lesions were present on the hard palate and behind the last molars. Histologically the lesions proved to be a simple hypertrophy of the mucous glands. In the discussion which followed Engelmann said that the teeth played an ætiological rôle. Schmilinsky had treated a similar case where the mouth burned and itched. He also found that the lesions were due microscopically to hypertrophy of the mucous glands. Westberg regarded mechanical irritations as the cause of the lesions and said he had encountered them on the penis. Fraenkel looked upon these cases as inflammatory. Delbanco said that there was nothing in the histology to prove this assertion.

In 1899, Delbanco⁵ presented another case of this disease again occurring in a syphilitic patient and he said that he expected to find syphilis present in these cases. Fraenkel wanted to call this disease myxadenitis.

Audry,⁶ in the same year, examined another case histologically and found that every lesion meant the presence of sebaceous glands which

he found below and in the epidermis. The subepithelial glands were apparently normal sebaceous glands. The intra-epithelial variety appeared in large numbers, some atrophied, others well developed. They lay in the deeper strata of the rete between the papillæ. Their upper cells were flattened and granular. Follicular openings were visible leading from the atrophied and from the normal glands. No true hairs were visible but certain structures present were highly suggestive of rudimentary hair. A horny layer containing eleidin was present and into this layer the follicles opened. The epithelial layer as a whole was normal. It was thick, well developed and without a trace of inflammation or lengthening of the papillæ. Audry came to the conclusion that these glands arose from aberrant buds and as they develop at puberty, grow less in old age and are seldom ⁶ seen in women that they are to be considered as closely related to the general sebaceous and hair system.

In December, 1899, Heuss⁷ reported twelve cases in thirty-eight individuals examined, four of which he examined microscopically. Macroscopically on section the lesions showed yellow dots below the epithelium; microscopically they resembled sections of rhinophyma. The sebaceous glands were well developed and preserved. Their canals were lined with granular cells and showed masses of fat and horny cells, often spirally rolled, resembling rudimentary hairs. These structures were better studied in cross section. The surrounding fibrous tissue was normal. The vessels were widely dilated and showed occasional endothelial hypertrophy. No plasma cells (in contradistinction to rhinophyma) were found but mast cells were present in goodly numbers. The lymph spaces were enlarged. Elastic fibers were abundant but seemed lumpy and compressed. The epithelium in places showed œdematous degeneration and mitoses were relatively rare. Groups of lymphocytes appeared in the intercellular spaces but Heuss considered this a normal condition in the oral cavity. The sebaceous glands were not tubular or simply acinous but contained six to eight pockets. From the result of these investigations Heuss decided to call this disease *acne rosacea of the mouth*. He further concluded that the new growth of sebaceous glands came exclusively from the epidermis, i.e., from the rete of the mucous, and did not arise from the blossoming of previously-formed, snared-off buds in the mucous membrane (as Audry believed) nor from invaginated, aberrant buds dating from foetal times.

Heuss described one case where syphilis was present and at his first examination free from Fordyce's disease. After four weeks of inunc-

tion of mercury there appeared along the interdental space sparsely scattered, pin-point to pin-head, yellow grains—new growths which showed the typical appearances of sebaceous glands. In this case serial sections disclosed in the rete a metamorphosis of the spinous cells into fat cells, and Heuss was able to follow the development of a sebaceous gland in all its stages.

In 1900, Suchanek⁸ reported a case in a male hypochondriac, aged forty-six. On examination Suchanek found opposite the molar teeth yellow spots reaching the size of a millet seed. Ferripyryn was applied to them and in a few days a great many similar lesions appeared. Histological investigation revealed purely compound sebaceous glands. The covering epidermis was a-nuclear and in places horny. Here and there slender horny points were seen. There was no marked inflammation present. The follicles were filled with sebaceous detritus and sebum. Suchanek afterwards examined many people but found these lesions but rarely and when present they were most frequently situated on the interdental line of the cheeks.

In 1904 Macleod⁹ found a young American woman who had a streak extending across the length of the lip composed of aggregations of irregular, yellowish-white bodies varying in size from a pin's head to minute specks. These lesions were flat, level with the mucosa, not perceptible to the touch, and appeared to be situated deep down in the epithelium. Subjective symptoms were absent.

This, then, is the substance of our knowledge of this disease up to the present time and it seems appropriate to add here in detail the results of my personal investigation covering a period of six weeks.

Cases observed at the Massachusetts General Hospital:

CASE II. F., æt. thirty-four, American, seamstress. Diagnosis, syphilis, dyspepsia, retroversion of uterus, and endocervicitis. Has gas in the stomach and attacks of nausea and vomiting lasting for five or six weeks. These periods occur about twice a year. The patient is obliged to avoid fatty foods, acids and certain other kinds of food owing to fermentation and sour taste in her mouth. Her tongue is clear and its color good. Breath not bad. Abdomen flat and tense. Urine negative. *Fordyce*: on the upper lip in the middle and on the right side there are four isolated lesions.

CASE III. F., Irish, æt. forty-five, housekeeper. Diagnosis, acne rosacea and dyspepsia. *Fordyce*: three lesions are seen on right side of upper lip.

CASE IV. F., German, æt. thirty-four, housewife. Diagnosis, tinea

trichophytina. Obscure pains in abdomen but nothing positively to be assigned to the digestive tract. *Fordyce*: on the upper lip appear a few minute lesions.

CASE V. F., Irish, æt. thirty-five, housework. Diagnosis, eczema seborrhoicum. Constipation. Gas forms after eating, causing a feeling of heaviness about the stomach and a sensation of weariness and exhaustion. Headaches frequent. *Fordyce*: on upper lip appears a narrow row of café-au-lait, flat-topped maculo-papules varying in width from one to four lesions running across the length of the lip.

CASE VI. F., Jew, æt. twelve, schoolgirl. Diagnosis, acne vulgaris, tinea trichophytina. *Fordyce*: on right upper lip at each side appears a fine line of single café-au-lait, minute, flat-topped papules. Apparently no indigestion.

CASE VII. M., Jew, æt. fifteen, school boy. Diagnosis, acne vulgaris and dermatitis venenata. No dyspepsia. *Fordyce*: on outer halves of upper lip appear minute, roundish, café-au-lait papules, pin-point in size, forming a band seven to eight lesions deep.

CASE VIII. M., Irish, æt. forty-five, clerk. Diagnosis, scabies. Dyspepsia. Patient goes without a movement of the bowels for two to three days at a time. Eructations, pain in lower bowel and dizziness. *Fordyce*: on the middle two-thirds of upper lip appears a broad band composed of ten to twenty café-au-lait macules, pin-point to pin-head in size.

CASE IX. F., Irish, æt. nineteen, no occupation. Diagnosis alopecia furfuracea, chloasma, achlorhydria, megalogastrica with usual concomitant symptoms. *Fordyce*: on upper lip running the whole length but particularly in the middle of each side, appears a broad band of very minute, typical café-au-lait macules.

CASE X. F., American, æt. thirty-eight, dressmaker. Diagnosis, eczema seborrhoicum, chloasma, dyspepsia in the past consisting of constipation, pain after eating, especially after noon-day meal. *Fordyce*: on upper lip, extending practically the whole way across but particularly in the middle of each side appears a band of typical lesions so minute that macules are nearly coalescent.

CASE XI. M., English, æt. sixty, janitor. Diagnosis, erythrodermie pityriasique en plaques disséminées and dyspepsia, consisting of heaviness and fulness after meals, gas and some constipation. *Fordyce*: on upper lip, in middle of right side, appears a band of typical lesions extending across whole width of mucous membrane which continues as a fine line toward the middle of the lip, where a second parallel line develops. On the left side there is a small area of macules in the middle portion.

CASE XII. F., Irish, æt. twenty-nine, housework. Diagnosis alopecia furfuracea and dyspepsia consisting of gas, nausea in the morning, relieved by induced vomiting, pain about the stomach and in the abdomen, constipation and weakness. *Fordyce*: on the left side of the upper lip appear a few straggling typical pin-point macules. On the right side the lesions become more abundant.

CASE XIII. F., Nova Scotian, æt. nineteen, brushmaker. Diagnosis, urticaria and dyspepsia consisting of malaise in the morning and during the day, eructations, feeling of heaviness about the heart and nausea. *Fordyce*: on the upper lip to the right appears a small group of minute yellowish macules; on the lower lip in the center are ten to twelve disseminated grayish papular lesions.

CASE XIV. M., Hungarian, æt. forty-four, rubber worker. Diagnosis, pityriasis rosea. *Fordyce*: in the center of the upper lip and extending sideways in both directions appear small groups of minute macules café-au-lait in color.

CASE XV. F., Irish, æt. twenty-six, no occupation. Diagnosis, acne vulgaris and dyspepsia, which dates from three years ago, when patient was used up from hard work and was troubled with distress after eating and had to avoid all fatty foods. Constipation. *Fordyce*: extending across whole length of upper lip but particularly emphasized at angles of the mouth appears a thin line of pin-point typical lesions which at the left extremity of lip attain the size of a pin-head. On the lower lip one finds a few scattered minute macules.

CASE XVI. M., Russian, æt. thirty-five, rag-picker. Diagnosis, eczema and dyspepsia, consisting of distress after eating, nausea and acid regurgitations. *Fordyce*: on the upper lip appears a continuous band of pin-head, café-au-lait maculo-papules, four to five lesions wide, extending from the middle point three-quarters of the way across the lip in both directions.

CASE XVII. F., American, æt. twenty-one, no occupation. Diagnosis, acne vulgaris, retroversion of uterus and dyspepsia consisting of anorexia, headache, pain under left costal border, vomiting, gas after meals and inability to eat cabbage or turnips. *Fordyce*: on the upper lip, especially toward the extremities, appears a fine line of pin-head macules two to three lesions wide.

CASE XVIII. F., Irish, æt. twenty-three, housework. Diagnosis, acne vulgaris and dyspepsia, consisting of distress after eating with nausea and vomiting, gas, headaches and weakness. *Fordyce*: in the middle of each side of the upper lip appears a group of small typical maculo-papules. On the lower lip exist a few similar lesions.

CASE XIX. M., Irish, æt. twelve, schoolboy. Diagnosis, eczema, chronic rhinitis and dyspepsia, consisting of weakness and soreness of stomach, some vomiting, some headache, gas, slight constipation. *Fordyce*: in the middle of each side of the upper lip appear a few scattered pin-head lesions.

CASE XX. F., Nova Scotian, æt. thirty-five, housework. Diagnosis, rosacea, hypertrichosis and dyspepsia consisting of "sick-head-aches," vomiting, gas, distress after eating certain foods (apples) and slight constipation. *Fordyce*: the upper lip shows a continuous band of typical macules two to three lesions wide.

CASE XXI. F., American, æt. twenty-four, housemaid. Diagnosis, acne vulgaris and dyspepsia consisting of gas, nausea and distress after eating, no constipation. *Fordyce*: on upper lip appear a few scattered, isolated café-au-lait, glistening macules.

CASE XXII. F., Irish, æt. forty-eight, housewife. Diagnosis, eczema and dyspepsia, consisting of gas and some heaviness in region of stomach. *Fordyce*: in the center of the upper lip appear a few grouped macules, some twice the size of a pin's head, others smaller. On the right side of the lip are two or three pin-point lesions.

CASE XXIII. F., Irish, æt. twenty-seven, waitress. Diagnosis, urticaria, leucorrhœa and dyspepsia consisting of nausea, vomiting, much gas, acid eructations, diarrhœa and occasional jaundice. *Fordyce*: on the upper lip appears a continuous band extending nearly the entire length of the lip composed of pin-head and larger fawn-colored macules. On the lower lip one finds groups of small papular lesions.

CASE XXIV. F., Irish, æt. twenty-three, stenographer. Diagnosis, acne vulgaris and dyspepsia consisting of distress and pain after eating and some headache. *Fordyce*: on the upper lip beginning in the middle and extending sideways to both angles of the mouth appears a thin dotted line of rather papular, pale yellow lesions. On the lower lip in the center one sees three or four papules.

CASE XXV. F., American, æt. forty-eight, housework. Diagnosis, lichen planus and dyspepsia consisting of acid regurgitations, considerable gas, some headache and constipation. *Fordyce*: in the middle of the upper lip appear a very few minute café-au-lait macules. It is interesting to observe in this case the *different appearances of the dull, pale buff, fawn-colored, irregularly placed maculo-papules of Fordyce's disease appearing on the lips and the glistening, pearly-white, grouped, superficially striated maculo-papules of lichen planus appearing on the inside of the cheeks.*

CASE XXVI. F., Irish, æt. sixty-nine, housewife. Diagnosis

eczema. No dyspeptic symptoms. *Fordyce*: on the central parts of each side of the upper lip appears a band of pin-head, buff-colored maculo-papules four to six lesions in width.

CASE XXVII. M., Russian Jew, æt. thirty-one, tailor. Diagnosis, dyspepsia consisting of some distress after eating late at night. *Fordyce*: on the middle of the upper lip at the junction of skin and mucous membrane appear two groups of somewhat coalescent, pin-head and larger, light buff-colored lesions which tend toward papulation. At both angles of the mouth extending toward center of the lip appears a continuous line of homogeneous, light buff lesions which broadens out as it extends inward.

CASE XXVIII. M., American, æt. fifty-four, grocer. Diagnosis, eczema seborrhoicum. No dyspepsia. *Fordyce*: in the middle and in the center of each side of the upper lip appear groups of round, isolated, café-au-lait macules.

CASE XXIX. M., American, æt. nineteen, student. Diagnosis, impetigo contagiosa and acne vulgaris. No dyspepsia. *Fordyce*: in the middle of the upper lip at the junction of skin and mucous membrane, appear scattered groups of isolated pin-head, buff-colored lesions extending to the angles of the mouth.

CASE XXX. M., American, æt. twenty-seven, baker. Diagnosis, stricture of urethra, synovitis of knee, eczema but no dyspepsia. *Fordyce*: on the upper lip principally in the middle of each side appear grouped café-au-lait maculo-papules. On the lower lip appears a continuous line of heaped-up, macerated epidermis.

CASE XXXI. M., Russian Jew, æt. twenty-seven, bottler. Diagnosis, eczema and slight recent dyspepsia consisting of gas after eating. *Fordyce*: on the upper lip, principally in the middle of each side, appear thickly grouped, pin-point macules. On the lower lip appear scattered, raised papules, scarlet in color.

CASE XXXII. M., Irish, æt. twenty-four, clerk. Diagnosis, alopecia furfuracea and dyspepsia consisting of headache and inability to eat pork and other greasy foods. *Fordyce*: along middle half of upper lip appear very minute, regularly scattered, café-au-lait macules.

CASE XXXIII. M., American, æt. forty-two, barber. Diagnosis, dermatitis venenata and dyspepsia consisting of distress and fulness in epigastrium after eating, acid eructations and gas. *Fordyce*: extending quite across the upper lip appears a somewhat interrupted band of closely clustered, in places coalescent, café-au-lait macules.

CASE XXXIV. M., American, æt. twenty-one, student. Diagnosis, abscess of neck, acne vulgaris and dyspeptic attacks recurring

every six weeks. *Fordyce*: extending across middle three-quarters of each side of upper lip appear intermittently grouped, pin-point, café-au-lait macules. On the lower lip appear a few large papules while on the inner side of the cheek one notes a few scattered pin-point lesions.

CASE XXXV. F., American, æt. thirty-two, housekeeper. Diagnosis, syphilis and dyspepsia consisting of much distress, heaviness, sourness and nausea after eating, eructations, bitterness of mouth in the morning. *Fordyce*: on the upper lip, principally in the middle, but extending across the whole length, appear grouped macular lesions.

CASE XXXVI. M., American, æt. twenty-four, physician. Diagnosis, lichen planus and some dyspepsia consisting of flatulence. *Fordyce*: on the upper lip extending across the lip appears a fine line of typical macules, some pin-head in size.

CASE XXXVII. F., American, æt. thirty-four, no occupation. Diagnosis, nervous diarrhœa, fibroma and dyspepsia consisting of gas formation especially after eating vegetables, occasional heartburn, headache, dizziness, shortness of breath on exertion, constipation. *Fordyce*: on the upper lip exists a continuous line, three-quarters of whole length of lip, of pin-point, closely clustered macules.

CASE XXXVIII. F., American, æt. forty, seamstress. Diagnosis, rosacea and dyspepsia consisting of acid regurgitation and some headaches. *Fordyce*: on middle three-quarters of upper lip appears a broken line of grouped, pin-head lesions. On the lower lip there are a few scattered, raised, pin-head papules.

CASE XXXIX. M., Irish, æt. forty, leather worker. Diagnosis, eczema. *Fordyce*: on middle half of upper lip appear three groups of pin-head, yellow macules.

CASE XL. M., American, æt. forty-three, fireman. Diagnosis, furunculosis, constipation and dyspepsia consisting of acid regurgitation and "gulping up of wind particularly at stool." Constipation of twenty years' duration. *Fordyce*: on the upper lip in the center of each side appear groups of four or five typical lesions.

XLI. F., Irish, æt. twenty-four, servant. Diagnosis, acne rosacea and dyspepsia (?) consisting of dizziness and headaches and irregularity of bowels. *Fordyce*: on the upper lip, confined almost entirely to the right half, is a line of minute lesions, which, at the right commissure, appear as a group of large maculo-papules. A similar condition but less in extent occurs at the left commissure.

CASE XLII. F., American, æt. thirty, housekeeper. Diagnosis, paralysis of third nerve, syphilis (?), acne vulgaris, seborrhœa, and dyspepsia consisting of pain in region of heart after meals and fre-

quent "sick headaches." *Fordyce*: on the upper lip, particularly at center and in the middle of each side, appear groups of fawn-colored typical lesions, very small in size.

CASE XLIII. F., American, æt. nineteen, no occupation. Diagnosis, urticaria, acne vulgaris and dyspepsia, consisting of gas in the stomach, frontal dizziness on blowing the nose, and constipation. *Fordyce*: on the upper lip, extending across the middle three-quarters, appears a line of pin-head macules, two to three lesions deep. On the lower lip are many disseminated papules.

CASE XLIV. American, æt. twenty-four, no occupation. Diagnosis, chorea, psycho-neurosis, acne vulgaris, dermatitis medicamentosa (K Br.), hypertrichosis and nervous dyspepsia consisting of great accumulations of gas in the stomach. *Fordyce*: on the upper lip, particularly on the sides, a fine line of very minute macules.

CASE XLV. F., American, æt. forty-two, no occupation. Diagnosis, eczema (with lichenification) and dyspepsia consisting of distress after eating, gas, headaches, constipation and a "trembling feeling" in the epigastric region. *Fordyce*: in the middle of the upper lip appears a group of isolated, pin-head, pale macules. The lower lip shows a few scattered isolated papules. On the inside of the right cheek one papule is visible.

CASE XLVI. M., American, æt. thirty-two, cigar-maker. Diagnosis, gonorrhœa, eczema seborrhoicum, rosacea, alopecia furfuracea and dyspepsia consisting of gas, some pain after eating, acid regurgitations and headache. *Fordyce*: extending across the whole width of the upper lip appears a fine line of very minute, yellow macules. On the lower lip are scattered whitish papules, while on the inner side of the left cheek one finds an area of minute yellow pin-head macules.

CASE XLVII. F., American, æt. thirteen, school girl. Diagnosis, acne vulgaris and dyspepsia consisting of gas, bloating, burning in œsophageal region, headaches and some constipation. *Fordyce*: on the upper lip, avoiding the central part, is a band, fairly wide, of pin-head, yellow macules.

CASE XLVIII. F., Irish, æt. fifty, housekeeper. Diagnosis, acute articular rheumatism, neurasthenia and dyspepsia (hyperacidity with hyperæsthesia) causing gas, dizziness, anorexia and constipation. *Fordyce*: almost the entire mucous membrane of the upper lip consists of soft, pale, buff tissue which on the stretch is seen to be composed of minute, pin-point lesions. On the inside of the left cheek near the commissure appears a round papule the size of a split pea.

CASE XLIX. F., American, æt. twenty-one, no occupation. Diag-

nosis, retroversion of uterus, acne rosacea and dyspepsia consisting of gas, inability to eat coarse vegetables, intermittent pain in the stomach, anorexia, restlessness, headache and occasional vomiting. *Fordyce*: on the upper lip, particularly toward angles of mouth, appears a fine line of pin-head, café-au-lait macules, two to three lesions wide.

CASE L. F., Canadian, æt. twenty-three, laundress. Diagnosis, lupus erythematosus and slight dyspepsia consisting of gas after eating fruit. *Fordyce*: on the upper lip exists a fine line of pin-point, fawn-colored macules extending across whole length of the lip. In the center the lesions become smaller but cover a much more extensive area in width.

CASE LI. F., American, æt. twenty-one, saleswoman. Diagnosis, eczema seborrhoicum and dyspepsia consisting of gas and feeling of weight in the stomach after meals. *Fordyce*: on the upper lip near the commissures appear a few minute café-au-lait papules.

Cases Observed in Private Practice.

CASE LII. F., American, æt. thirty, school teacher. Diagnosis, hypertrichosis and acne vulgaris. *Fordyce*: along the border of the upper lip there is an almost continuous band, one to four lesions wide, of café-au-lait, flat, polygonal, soft papules.

CASE LIII. M., English, æt. thirty-nine, salesman. Diagnosis, eczema, alopecia furfuracea and "stomach trouble" consisting of acidity, gas and constipation. *Fordyce*: in the middle portions of each side of the upper lip there appears a group of typical café-au-lait, pin-point lesions.

CASE LIV. M., American, æt. thirty-six. Diagnosis, alopecia furfuracea and eczema seborrhoicum. *Fordyce*: on the upper lip appears a line of typical café-au-lait lesions extending on either side three-quarters of distance toward commissures. On the lower lip in the middle near the frenum appears a group of much more prominent papules.

CASE LV. M., American, æt. eighteen, student. Diagnosis, acne vulgaris and dyspepsia consisting of recurrent "bilious attacks," jaundice, gas and bitter taste in the mouth. *Fordyce*: extending across the whole length of the upper lip appears a narrow band of café-au-lait lesions. On the lower lip near the frenum there are a few more elevated papules. On the nose near the right eye is an irregular island, suggesting a mixture of Fordyce papules and xanthomata, composed of café-au-lait papules.

CASE LVI. M., American, æt. fifty, merchant. Diagnosis, eczema

seborrhoicum and slight dyspepsia. *Fordyce*: on the upper lip appears a row of typical macules, pin-head or smaller in size.

CASE LVII. F., American, æt. fifteen, schoolgirl. Diagnosis, acne vulgaris and dyspepsia consisting of gas, headaches and "biliousness." *Fordyce*: in the middle of the upper lip appears a wide group of minute, pale, pin-point macules.

CASE LVIII. American, æt. eighteen. Diagnosis seborrhœa. *Fordyce*: on the upper lip appears a continuous row of thickly studded, pale, pin-head macules.

CASE LIX. F., American, æt. thirty-five. Diagnosis, hypertrichosis, acne rosacea and indigestion consisting of gas, acid regurgitation, pain near heart, "sick headaches" and constipation. *Fordyce*: on the upper lip appears a continuous line of homogeneous, café-au-lait lesions one-sixteenth of an inch broad, extending across the whole length.

CASE LX. F., American, æt. twenty-three. Diagnosis, eczema seborrhoicum and dyspepsia consisting of dull pain in epigastrium, some nausea and gas. *Fordyce*: on the upper lip appears a narrow band of minute lesions.

CASE LXI. F., American, æt. thirty-four. Diagnosis, eczema seborrhoicum and severe dyspepsia consisting of gas, intense cramps relieved only by hypodermic injections, and inability to eat many acid foods. *Fordyce*: on the lips, principally in the middle of each side, appears a broad band of minute, almost homogeneous lesions.

CASE LXII. M., American, æt. twenty-four. Diagnosis, acne. *Fordyce*: the upper lip shows a homogeneous line of gray-yellow, coalescent lesions thinning out and becoming isolated at the commissures. On the lower lip appear a few isolated, elevated papules.

CASE LXIII. F., American, æt. seventeen. Diagnosis, hypertrichosis and acne. *Fordyce*: on the middle three-quarters of the upper lip appears a line of grouped, pin-head, pale buff lesions.

CASE LXIV. M., American, æt. thirty-two. Diagnosis, acne. *Fordyce*: nature of lesions not recorded.

CASE LXV. M., American, æt. seventy-one. Diagnosis, seborrhœa and dyspepsia consisting of gas and acid regurgitations. *Fordyce*: on the upper lip exists a line, two to five lesions in width, of café-au-lait, pin-head papules.

CONCLUSIONS FROM THESE TABLES.

When we come to analyze the results of these personal clinical observations we find that the disease consists of the presence of small, irregular, café-au-lait maculo-papules. The lesions vary in size from

a pin-point to a pin-head. They are irregularly round or polygonal, like a mosaic. They are sometimes an orange yellow but more usually a pale buff in color. They are almost always imperceptible to the touch, except on the lower lip, where they sometimes assume a distinct, dome-shaped, papular condition. Their abundance varies all the way from a few isolated lesions to solid, almost homogeneous bands extending the entire length of the lip. Their presence was in all cases but the first unknown to the persons who bore them, and it is probable that this man's attention was drawn to them only by an accidental superimposed condition of inflammation. They exist in practically all cases upon the upper lip but may and often do occur on the lower lip and on the mucous membrane of the mouth. Their age and duration can not be determined because their presence is practically unknown to their bearers.

They occur in males in proportion to females as two to three. The youngest patient observed was twelve, the oldest seventy-one. They were most frequently met with between the ages of twenty and forty, but the second and fifth decades of life produced more than half as many instances as the intermediary years.

And now I wish to emphasize some further observations hitherto not recorded by those who have preceded me in work upon this subject. I refer to the fact that *acne vulgaris* occurred in nineteen of these sixty-five patients; *acne rosacea* in nine; *eczema seborrhoicum* in nine, and *alopecia furfuracea* in nine. In other words, about seventy per cent. of these people suffered from diseases which are intimately associated with disorders of the sebaceous glands. Still more significant is the fact that seventy-seven per cent. of these patients were afflicted with dyspepsia—certainly a very striking proportion.

I don't know that physicians have made any record of the people of Boston and its neighboring states to determine the relative presence of dyspepsia, but I feel sure that more than twenty-three per cent. of New Englanders must be free from symptoms of indigestion, and I, therefore, am going to make the assertion that the concomitance of the above-mentioned four diseases was not an accident, but that they and perhaps the lesions of Fordyce's disease owed their origin to the difficulties of digestion *with their subsequent toxæmias* from which fifty out of the sixty-five patients suffered.

HISTOLOGY.

The specimen examined was excised from the upper lip near the angle of the mouth of Case I. The piece was fixed in Zenker's fluid, hardened and cut in paraffin and stained in various ways.

The Epidermis. As a whole this portion of the skin stained slowly and indistinctly.

The germinal layer stained comparatively sharply. This layer was fairly normal in places; in others it was composed of closely packed, irregularly shaped cells showing some leucocytic infiltration; and again its interior boundary was difficult to determine. It is fair to say that nowhere was this stratum germinativum composed of the typical, regular, palisade cells.

The rete proper presented a complex picture but showed nowhere the usual large, polygonal, spinous cells. The layer was emphatically acanthotic—perhaps four to five times the depth of the adjacent, non-affected portion of the lip. The cells immediately above the germinate layer did not develop in size but appeared compressed, exhibiting a rather abnormally small amount of cytoplasm and contracted, vertically elongated nuclei. Here and there nuclei had disappeared or again appeared crescentic and flattened against one side of the cell wall. Karyokinetic figures were fairly abundant. Farther toward the free border curious anomalies appeared, in places the protoplasm of the cells absorbing the nuclear stain, while in others the cells would assume the so-called cavitory formation with the cytoplasm massed in distinct trabeculae and the nuclei apparently floating in space or absent altogether. Sometimes, in fact, these two processes would appear in conjunction.

As one approached the free border of the epidermis this peculiar staining reaction became more and more evident, the protoplasm receiving the hæmatoxylin or the methylene blue in a pale and diffuse manner, while the nuclei, which at this level had become less and less abundant and appeared as flattened rods, absorbed their usual basic stains and as a rule stood out clearly contrasted against their diffuse and paler background.

Over this acanthotic and parakeratotic rete the granular layer was absent.

Corium. At the periphery of the lesion, where the true skin began, sebaceous glands appeared in rather unexpected abundance. These glands* were unusually well preserved—even the central cells showing

*In regard to the presence of sebaceous glands in the lip, Koelliker (*Handbuch der Gewebelehre des Menschen*, p. 264) says: "Sebaceous glands occur on the red part of the lips, which one can see when the lips are closed, especially on the upper lip, seldom on the lower. The number of the glands varies. They are most abundant in the corners." Macleod, in his *Pathology*, makes similar statements. E. Wertheimer (*Arch. Gén. de Méd.*, 1883, vol. I, p. 399) admits their presence and claims that they are independent of the hair system.

the typical trabeculated appearance of the fatty cytoplasm with persistence of well-marked nuclei. There was, however, a distinct surrounding cellular infiltration of the mononuclear type. The blood vessels were also well marked and considerably dilated showing, however, no particular endo- or perivascular changes and containing erythrocytes, lymphocytes and polynuclear elements. The supporting structure of the corium absorbed the coloring reagents poorly producing a faint, ill-defined picture.

The corium underlying the pathological epidermis showed many of the characteristics just described. Between the papillæ there was considerable infiltration of mono-nuclear cells with occasional mast cells, the former type in places obscuring the boundary between corium and epidermis. The vessels of the papillæ were widely dilated, in places forming a distinct meshwork, but exhibited no other abnormal features. All elastic elements were apparently wanting. Deeper down, numerous dilated vessels appeared showing a marked abundance of nuclei in their walls with some perivascular infiltration. Slightly dilated lymph spaces were also present and the bundles of collagen tended everywhere toward dissociation. The corium as a whole stained diffusely and throughout the deeper layers mast cells were visible in considerable numbers.

Comparing the findings of this examination with those of previous observers, particularly of Heuss, there are several points of resemblance, but many more of dissemblance. Heuss and his predecessors, except Fordyce, are in accord that the maculo-papules of this disease are in reality sebaceous tumors. Heuss carries out this theory still further and reports that he has discovered the origin of the disease and has actually observed the formation of new sebaceous glands within the rete. He, therefore, wishes to call the process *acne rosacea* of the lip and mouth.

Returning to the present example and looking at figure 1 it will be seen that a certain portion of the section presents an excellent picture of *acne rosacea*. The large and numerous glands are there; the many dilated vessels are present in the rete and in the papillæ; the widened lymph channels can be made out and under the higher powers the mast cells appear. But when one glances at the section as a whole one is struck by the fact that this rhinophymatous condition is in reality outside of the tumor proper and almost entirely under the true skin of the lip—in other words, the disease itself lies beyond.

Examining now more closely the large abnormal rete cells seen in Figs. 2, 3, and 4, and studying them in regard to the possibility of

their being examples of Heuss' sebaceous metamorphosis it seems unlikely that such is the case. Comparing them with the typical sebaceous cells seen below in their normal position in the corium it is evident that the rete cells are larger and, when magnified 1,000 times, as in Fig. 4, that their enclosed meshwork surrounds much larger spaces than the component fat cells of the true sebaceous glands. Furthermore the group of rete cells, as a whole, having reached the present size, should show signs of a containing wall of fibrous tissue, but such is not the case here, nor can one find the usual surrounding vascular supply nor the typical outer cylindrical cells. It is to be regretted that this possibility was not definitely settled at the time of excision by placing some of the tissue in osmic acid, but unfortunately this was not done and other specimens are difficult to obtain.

What, then, are these abnormal cells? To my mind they are simply rete cells which have become highly œdematous and greatly swollen producing the "reticulating degeneration" seen in variola and some other diseases.

From the above remarks it is evident that we cannot agree with the more recent writers who declare that this disease is pathologically a sebaceous tumor, for we have seen that the sebaceous element, though abundantly present, lies beyond the diseased tissue proper. On the other hand we have found that the essential change lies in the epidermis and consist of acanthosis, œdema and parakeratosis—in other words, we have found exactly similar conditions to those described by Fordyce, the original observer and investigator of this disease.

Thus the two divisions of my investigation do not agree. Clinically, the cases, with their possibly precedent dyspepsia and concomitant seborrheic diseases would tend to strengthen the pathological findings of those writers who would call the disease *acne rosacea* of the mucous membranes; pathologically, however, the sections contradict this view absolutely, for, as the photographs show, the sebaceous glands present lie beyond the boundaries of the lesion proper.

In conclusion I wish to express my thanks to Mr. L. S. Brown, of the Massachusetts General Hospital, for the photomicrographs which illustrate the pathology so clearly.

DESCRIPTION OF PLATES TO ACCOMPANY DR. CHARLES J. WHITE'S ARTICLE.

PLATE XV.

FIG. 1. Low Power. Showing on the left the sebaceous structures, lying for the most part under the epidermis covered by true skin. On the right appears the disease proper, consisting of a greatly hypertrophied epidermis.

FIG. 2. Higher power. Illustrating in detail the points described in Fig. 1. On the extreme left can be seen the granular and horny layers of the true skin over the sebaceous glands. Adjoining this area can be seen the parakeratotic process beginning. Farther toward the right can be seen the hypertrophied epidermis; the somewhat abnormal palisade layer with its infiltrating cells; the œdematous, poorly staining rete cells; the highly swollen reticulated cells; the superficial parakeratotic cells, and lastly, the widely dilated lymph and blood vessels of the corium.

PLATE XVI.

FIG. 3. X 200. Illustrating the rete cells affected by reticular degeneration and suggesting faintly the enclosed septa of the cells.

FIG. 4. X 1000. Showing in still greater detail the structure of Fig. 3. Note the large size of the enclosed spaces, also the spines of the rete cells.

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² Allen: *Jour. Cut. and Gen. Urin. Dis.*, 1897, p. 29. Presentation of a case before the New York Dermatological Society.

³ Montgomery and Hay: *Proceedings of the Tenth Annual Session of the Association of American Anatomists*, p. 76, 1897. Sebaceous glands in the mucous membrane of the mouth.

⁴ Delbanco: *Münch. Med. Wochenschr.*, 1898, p. 1510; *Ueber die Entwicklung von Talgdrüsen an der Schleimhaut des Mundes*.

⁵ Ibid: *Münch. Med. Wochenschr.*, 1899, p. 459.

⁶ Audry: *Monatsh. für prakt. Dermat.*, vol. XXIX, p. 101. *Ueber die Veränderung der Lippen und Mundschleimhaut des Mundes*.

⁷ Heuss: *Monatsh. für prakt. Dermat.*, vol. XXXI, p. 501. *Ueber postembryonale Entwicklung von Talgdrüsen in der Schleimhaut der menschlichen Mundhöhle*.

⁸ Suchanek: *Münch. Med. Wochenschr.*, 1900, vol. I, p. 575. *Ueber gehäuftes Vorkommen von Talgdrüsen in der menschlichen Mundschleimhaut*.

⁹ Macleod: *British Jour. Dermat.*, 1904, p. 145. A case presented before the London Dermatological Society.

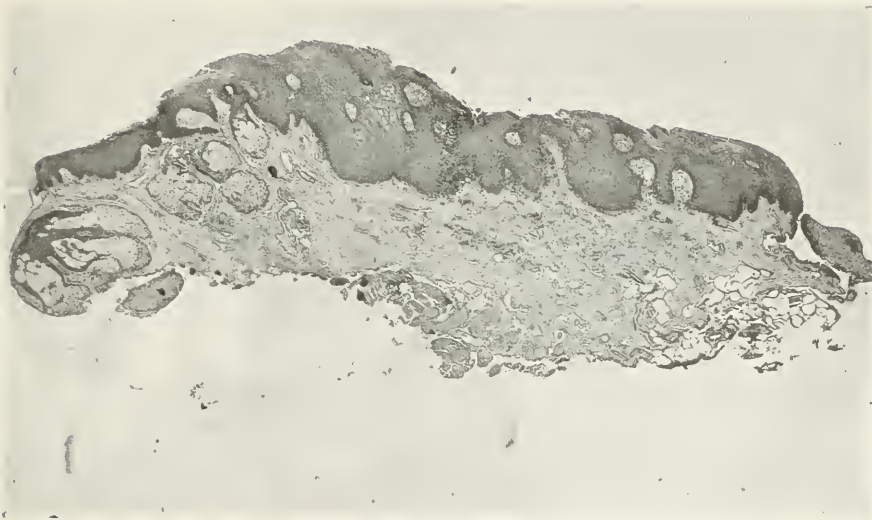


FIG. 1.



FIG. 2.

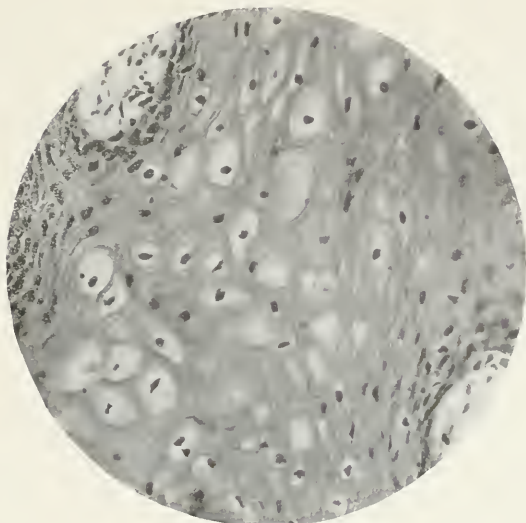


FIG. 3.

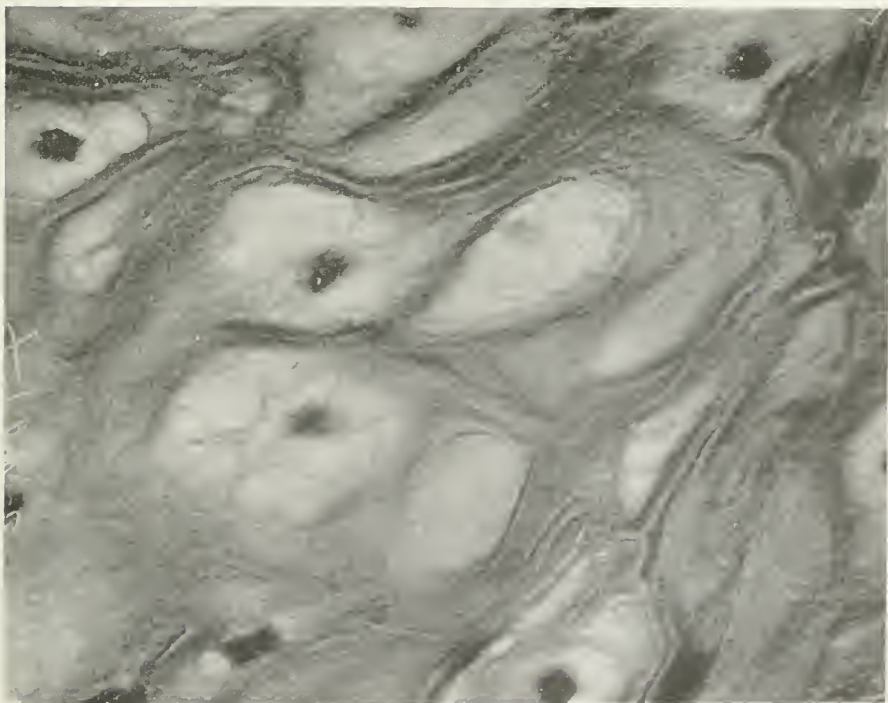


Fig. 4.

THE MOULD OF DERMATITIS COCCIDIOIDES.

By DOUGLASS W. MONTGOMERY, M. D.,

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OF recent years a new pathogenic mould has been discovered, with the following characteristics: It grows readily at ordinary brood temperature on almost all of the ordinary culture media; on solid media it looks very much like the ringworm fungus; in liquid media it forms little fluffy balls like thistledown. It is pathogenic for a large number of animals, but requires a considerable dose to effect a fatal result, and it produces, both in human beings and in the lower animals, the best mimicry of tuberculosis that has ever been observed. (Wm. Welch.)

In animals, including man, the organism does not at all resemble the fungus as it grows on culture media, but appears as little circular globes with a well-marked doubly refractive capsule. In the tissues it reproduces itself by forming little globes inside a large one. The large one then breaks, and the little ones escape, to in turn grow large, and so on indefinitely. Such a globe filled with little globes, reminds one of an old-fashioned hand grenade filled with musket balls. There is absolutely no resemblance between the organism as it grows in the tissues and the mould that grows on culture media. All of the patients having this malady have, with the exception of two, been observed in California, and have evidently acquired their disease there.

Wernike, of Buenos Ayres, reported a case which may have been due to this mould, but the proof that it is exactly the same disease is not conclusive. Prof. James Homer Wright, of Boston, has, however, just reported a case which occurred in the practice of Dr. Wm. P. Bolles where the disease was undoubtedly caused by this mould, and S. B. Wolbach, of Chicago, has reported in detail his findings on cultures and animal experiments made with material furnished by Professor Wright. It is interesting to note that this patient also had at one time lived in California, and may therefore, as in the previous cases reported, have got her disease there. Here has also to be mentioned an interesting case observed recently by Wm. Dubreuilh, of Bordeaux, where the pathogenic organism was an encapsulated globe that multiplied by internal division. In one single instance the observer thought he saw budding, but the object escaped him and he could not find it again. No endogenous spores were found, so the organism cannot be reckoned in as identical with that described by the California observers, or by Professor Wright, although it may be closely related to it. No cultures were made of it, which further removes it from possibility of classification in this category.

This coccidioides fungus was first discovered by Rixford, of San Francisco, and he and Gilchrist, of Baltimore, published the first cases of it. Subsequently, Ophüls and Ashe, of San Francisco, discovered the mould form of the fungus. The mould looks very like that of the yeast fungus, or blastomyces, and the capsulated bodies found in the tissues also resemble the capsulated yeast fungus bodies. Furthermore, both the moulds cause fungating ulcers on the skin, so that their resemblances are striking; their differences are, however, also striking. We find that every observer unites in saying that the capsulated bodies found in the tissues in coccidioides are larger than those of blastomyces, and that no reproduction by budding has been observed either in the tissues or on culture media, whereas in all the yeasts under all circumstances reproduction by budding is a striking and characteristic feature. When such a constant, fundamental, toconogenic difference is noted between two organisms it would hardly seem fair to class them together.

While the botanical or zoological identity of the organism which produces "dermatitis coccidioides" still remains undetermined, evidence accumulates to prove that to confound it in the group of "blastomyces" is a grave mistake. It is impossible, in determining the identity of organisms in the lower stages of life, to ignore or to underestimate such an important element as their way of reproduction, as it is on the basis, chiefly, of this important phenomenon that many genii are distinguished from one another. Although recently begun, the bacteriological study of blastomyces and of dermatitis coccidioides, conducted by different observers in different countries, proves without a shadow of doubt that these diseases are due to at least two different kinds of parasites, the blastomyces and the unidentified organism, which it has been proposed for the time being to call "coccidioides." The former develops in the tissues by budding, and this mode of reproduction is unmistakably evident in its different stages under the microscope, while in coccidioides the process of reproduction by sporulation is equally clearly shown, with absolutely no sign of any budding process. These biological differences are of so radical a nature that we do not feel warranted to see between these two sets of organisms even that degree of analogy, suggested by Dubreuilh, which exists between the micro-organisms producing the different varieties of ringworm (*Ann. de Derm. et Syph.*, Oct., '04). However important the distinction between the two diseases from a bacteriological point of view may be, their clinical, pathological and prognostical differences are scarcely less interesting. But that is another story.



MULTIPLE SEBACEOUS CYSTS: A CASE.

By ALEXANDER MCPHEDRAN, M.B., Toronto.

THE following case presented such a vast number of sebaceous cysts that it is an extremely rare, if not an unprecedented, one. There are a few cases on record in which there were from 132 to 250 tumors present,¹ and Chiari reports one in which several hundreds were scattered over the general surface.²

The number of cysts in the following case probably far exceeds even that of Chiari's:—

A. D., aged 25—a healthy man without anything of moment in either his family or personal history. His skin affection was first noticed during adolescence, no attention, however, being paid to it for some years. It developed gradually and attracted attention through the occurrence of acne and the formation of large pustules, which occurred with increasing frequency. The illustrations show the wide distribution of the lesions, but convey a very inadequate idea of their number, as the great majority of them were too small to show in the photograph, or even to be noticeable to the eye. They could be felt as nodules beneath the skin, varying in size, the smallest being barely palpable, and the largest fully 2 centimeters in diameter. On the body they were so numerous and closely set that the point of the finger could scarcely be placed anywhere on the trunk without touching one or more. Over the larger ones the skin was usually closely adherent, to some only loosely. The small nodules were, as a rule, deeply placed, and only attached to the superjacent skin by an ill-defined strand of fibrous tissue, doubtless the obliterated duct. The contents of the smaller and of many of the large nodules consisted of thick, sebaceous material that exuded in a white, ribbon-like form through the linear puncture made with a bistoury. In some of the larger nodules the contents were partly sebaceous and partly a yellow oil; in a few they consisted wholly of oil. None of the cysts were pedunculated, but as they grew large, one here and there of the older ones became inflamed. The exudate into the periphery soon became purulent, and in a short time destroyed the capsule of the cyst, converting the whole into a bleb of pus in which the sebaceous contents became liquefied. The wall of the bleb usually sloughed, leaving a large, ulcerated surface, which healed, with a broad, deep scar.

¹ Jamieson, *Edinburgh Med. Journal*, Sept., 1875, p. 223.

Maclaren, *Edinburgh Med. Chir. Soc'y Trans.*, 1888, p. 77.
Pollitzer, *Jour. Cutan. and G. U. Diseases*, 1891, p. 281.

² Chiari, *Zeitschrift für Heilkunde*, 1891, Vol. XII., p. 189.

As the cysts were so numerous, an attempt to dissect them out seemed futile, so each day a number of the larger cysts were freely incised, the contents pressed out, and, if possible, the cavity curetted, or swabbed out with carbolic acid. This was a painful process, and, consequently, only a few cysts could be treated at one time. In not a few the treatment was unsuccessful, and required to be repeated. At the same time the acne was vigorously treated, and the general surface thoroughly cleansed daily to lessen the liability to infection of the glands and cysts, and it was rubbed to stimulate the circulation, so as to improve the nutrition of the skin.

After two months' stay in the hospital, he left very much improved, but still with a great number of small cysts. Whether fresh cysts were forming is uncertain; many small ones grew large under observation, and some were allowed to suppurate in order to observe their natural course. The acne was greatly improved by the treatment; the comedones became much fewer and the skin much healthier in appearance. He has not been seen since. With the improvement in the general condition of the skin it is probable that the formation of new cysts would be much lessened, if not quite arrested. The number of cysts was so very great that a cure seemed almost hopeless; at least it would require the utmost patience on the part of both physician and patient. Of course, much scarring will result.

The photographs, especially that of the back (Fig. 1), show many sloughing cysts, a large one being at the upper end of the anal fissure. The axillary cysts are very large. (Fig. 3.)

EDITORIAL.

STERILITY CAUSED BY THE USE OF THE X-RAY.

In the February, 1904, issue of the *JOURNAL OF CUTANEOUS DISEASES* the experiments of Albers Schönberg were referred to as a warning of the danger of producing sterility incurred by X-raying the testicles in a case of psoriasis presented by the writer before the December, 1903, meeting of the New York Dermatological Society. At that time it was claimed that the X-ray was too powerful an agent to be used in the treatment of an affection which yielded readily enough to much milder remedies, especially when the disfiguring loss of hair and the unknown danger of causing necrostermia were to be considered. This patient was X-rayed for lesions on the scrotum for twenty-five sances of five to eight minutes or a total exposure of one hundred and twenty-five to two hundred minutes, and at present, or fifteen months since stopping treatment, has complete azoospermia.

This latter danger, in a much more insidious form, has been realized in the cases recently reported by Dr. F. Tilden Brown. Dr. Brown has made the unfortunate discovery that patients and physicians who had spent more or less time in an X-ray atmosphere were the subjects of an azoospermia without being conscious in any way of deterioration or change in their potency.

The *Medical News* and the *Medical Record* have already sounded the warning note in editorials, and have alluded to the experiments of Halberstädter (*Berliner Klin. Wochensch.*, Jan. 16, 1905), showing that marked macroscopic and microscopic changes took place in the ovaries of rabbits which had been exposed to the Roentgen ray. "The histological change most in evidence was the complete disappearance of the Graafian follicles, in about fifteen days. Whether this loss is permanent and whether or not, regeneration can take place, has not yet been determined. It was also found that the ovaries seemed more sensitive to the effects of the rays than the outer skin of the abdomen, and when compared with control experiments in male rabbits, developed degenerative changes in shorter time and with fewer exposures. How far these observations in animals apply to human beings cannot yet be definitely stated, nor is it known how permanent the effect may be." Of course the question of individual susceptibility must also be taken into account, but since the wearing of an apron impervious to the rays, or the incasing of the focus tube so as to prevent the escape of all rays except those intended for a particular region under treatment, and to avoid applying the rays to "danger zones," would seem to obviate all danger in this direction.

SOCIETY TRANSACTIONS.

NEW YORK DERMATOLOGICAL SOCIETY.

328th Regular Meeting, November 22, 1904.

GEORGE H. FOX, M.D., President.

Lupus Vulgaris of Ear. Presented by Dr. PIFFARD.

Dr. Piffard presented a case of Lupus Vulgaris. The patient was a woman about thirty-eight years of age, who consulted him first on May 19, 1903. The lesion involved the lobe of left ear and had commenced ten years before, appearing after perforation of the lobe for earrings. No treatment until 1899; since which time had been under constant treatment. The lupus infiltration was visible both in front and behind the lobe. Dr. Piffard treated the case, somewhat intermittently, for more than a year with ultra-violet rays and with radium of 1,000,000 activity with some diminution of the infiltration. On the 11th of October Dr. Piffard applied his new rays for fifteen minutes to the back of the lobe, using single spark-gap. October 24th, reaction has been very great and a small ulcer corresponding to the site of the lupus deposit has resulted. November 21st, ulceration entirely healed, but there is some œdema remaining and it is impossible to determine at present whether the lupus has been entirely destroyed or not. Case was exhibited to show the intense activity of the rays and their predilection for the morbid tissue.

Flat Carcinoma of Skin. Presented by Dr. PIFFARD.

Man, fifty-two years of age, consulted Dr. Piffard, January 28 for lesion on right side of neck beneath the ear. It measured 1 inch by $\frac{3}{4}$ inch. On left side of neck similar lesion 1 inch by $1\frac{1}{2}$ inches. Removed the lesion on right side by operation. March 14, completely healed with good scar. Operated on left side. This healed in due season and was not seen again until recently, when, on November 7, 1904, patient returned on account of relapse. Found one small lesion right side and several points of relapse on left side. Applied rays from three-spark lamp for five minutes to left side, November 14. Some reaction left, but all points looking better. November 22, very manifest improvement of left side, but thought best not to renew application to-day. Applied one-spark lamp to lesion on right side for seven minutes and when exhibited ten hours later there was marked reaction.

Lupus Erythematosus. Presented by Dr. PIFFARD.

Dr. Piffard presented a patient that had been under the care of Dr. Dieffenbach at the Flower Hospital. Extensive lupus erythematosus involving cheeks, nose and forehead. The cheeks had been treated with

X-rays and the forehead with the new rays. Progress had been most rapid under the latter.

Relapse of an Epithelioma of the Nose and Lower Lid Following an Apparent Cure by X-ray Treatment. Presented by Dr. FORDYCE.

The patient, a man, aged forty-four years, was presented before the 321st regular meeting of this Society as a case of epithelioma cured by the X-ray. The ulceration was of the most superficial type and readily healed after eight exposures to the ray. He has had no treatment since early in the present year. During the last three months the epitheliomatous ulceration has recurred and has involved a surface as large as the original one. The relapse was possibly due to the fact that the treatment was not sufficiently prolonged. It was the intention of the speaker to use the same method of treatment and present the patient again before the Society.

Syphilitic Onychia and Paronychia. Presented by Dr. ALLEN.

Dr. Allen presented a subject of secondary lues previously shown with extremely severe onychia and paronychia of all fingers and toes. The nails have now nearly all grown in again.

Acne Varioliformis. Presented by Dr. BRONSON.

The patient was a man about thirty-five years of age, who had first noticed the affection some ten years before. At present the parts principally affected were the forehead, cheeks, and scalp. Over the scalp (which was bald on top) and forehead were multitudes of shallow lenticular scars. Some of the present lesions were peculiar in the amount of inflammation present and in the fact that a few of them showed rather thin crusts.

Dr. BULKLEY said that he believed that much could be done for acne varioliformis by proper internal treatment, as he had repeatedly witnessed, both in cutting short the present eruption and in preventing recurrence. His treatment was the same as in acne indurata and rosacea, namely acetate of potassa, with nux vomica and extract of rumex, given freely diluted, half an hour before meals—and the addition of cascara, if there was constipation.

Dr. KLOTZ stated that he would confirm the usually excellent results of the ointment of the white precipitate of mercury.

Melano-Sarcoma. Presented by Dr. FOX.

The patient, aged forty-seven years, presented nearly a hundred dark bluish or black macules and nodules on various portions of the body. A pigmented mole above his knee was excised in July, 1903. There were disseminated lesions existing at this time, but their number has increased since that time. The patient has been an athlete and his general health now appears excellent.

Dr. FORDYCE. Regarding the histological distinction between the case in question and the so-called idiopathic multiple pigmented sarcoma of Kaposi, Dr. Fordyce stated that the pigment in the case presented was formed in the cells of the new growth, whereas in the Kaposi type it was the result of the changes in the blood extravasation which took place in the sarcoma tissue. He had examined metastatic tumors in cases similar to the one shown by Dr. Fox and was surprised to find how little reaction the embolic growths excited in the surrounding tissue.

A Case for Diagnosis. Presented by Dr. ALLEN.

The patient was a journalist who acquired syphilis in 1861. For many years there have been two plaques of leucoplakia upon the tongue. Four years ago the larger patch was superficially cauterized by a "psychopath" and since that time this patch has been more or less irritated and sore at times. During the past seven weeks the open sore has grown steadily worse, until it now presents a round, firm, elevated fleshy mass of more than an inch in diameter, having a somewhat indurated border and presenting a deep painful fissure through the anterior portion of the center.

The treatment had consisted in one intramuscular injection of bichloride, increasing doses of iodides, and two X-ray exposures.

Dr. JACKSON regarded the case as one of cancer of the tongue.

Dr. BULKLEY believed the lesion on the tongue to be certainly epithelioma. In regard to a radical surgical operation, he would state that there had been a number of cases of very complete excision done at the New York Skin and Cancer Hospital, which were not only not fatal, but in which there had been certainly complete recovery for a long period. He knew of two such cases personally.

Dr. KLOTZ did not wish to deny or doubt the carcinomatous nature of the lesion, but as long as an attempt was to be made to try some specific treatment in the face of the history of syphilis, he considered the administration of iodide of potassium entirely inadequate. He then would advise an energetic mercurial treatment, preferably injections of calomel, which could be depended upon to decide in about two weeks whether mercury had any effect.

Psoriasis of the Hands. Presented by Dr. FORDYCE.

The patient was an Italian woman over fifty years of age, who had a dry squamous eruption which involved the palmar and dorsal surfaces of the hands and fingers and extended over the forearms about an inch beyond the wrists. The margins of the patches were sharply defined against the healthy skin of forearms. When she was first seen the involved surfaces were covered with large, thin scales resembling those met with in pityriasis rubra. The nails were deformed, transversely furrowed, brittle and of a dirty brown color. She stated that the present eruption had existed longer than a year, and that she had had two previous attacks of a like nature. In the previous attacks the hands were involved in a similar manner. The diagnosis of psoriasis had been made by excluding other palmar affections and by reason of the sharply defined margins of the patches on the forearms. An examination of the

extremities revealed a few imperfectly defined patches of psoriasis. The case was worthy of attention because of the practical limitation of the eruption to the hands and to the fact that in this, her third attack, the same parts were always affected.

Dr. BULKLEY could not accept the diagnosis of psoriasis of the hands, but looked on it as a case of localized pityriasis rubra.

Dr. JACKSON said that he was very glad to see the patient again as she was an old patient of his. He first saw her in 1897, when he presented her to his class at the Woman's Medical College of the New York Infirmary. He subsequently had her under his care at the Presbyterian Hospital.

In November, 1897, he presented her to this society. At that time the hands presented about the same appearance as they do to-night. At that time one of the members thought it was a keratosis, and another psoriasis.

Under various treatments the disease grew worse, spreading over the arms, thighs, scalp, and, to a less degree, trunk.

In February, 1898, he presented her again to the society with the eruptions on the forearms and legs, the skin being red, dry, and covered with papery scales which left exposed a glazed surface on removal. The skin of the hands appeared as if tightly drawn over the underlying parts. At that time all the members excepting one diagnosed it as pityriasis rubra. The dissenting one thought it was dermatitis repens.

During the five months the patient was in the hospital he saw her twice a week, and several members of the society saw her with him. At no time did she present any patch resembling psoriasis, or complain of any itching.

After many experiments in the way of treatment she fully recovered under iodide of potassium by the mouth and a fine quality of olive oil locally. After consulting his hospital notes he found that she had taken for a time 108 grains of iodide each day. The case appeared on his note-book as one of dermatitis exfoliativa.

Ulerythema Sycosiforme. Presented by Dr. ALLEN.

Dr. Allen presented a young man with this rare form of sycosis, which had existed for four years upon both cheeks. In 1902 he had been relieved by X-ray treatment, but after six months there had been recurrence. Last year he was treated with resorcin and sulphur with benefit. Now, after a few X-ray exposures, there is marked improvement. Upon the right cheek is a patch two inches in diameter with smooth cicatricial center devoid of hair. At the periphery there is extension in all directions by inflammatory involvement of the follicles without tendency to suppuration or loosening of hairs as in sycosis vulgaris. There has always been more or less blepharitis, which improved under ray treatment.

Upon the lip is a round scaly patch devoid of evidence of suppuration.

Dr. BULKLEY agreed that this was the condition to which Unna had given the name ulerythema sycosiforme, but believed that it was due to the invasion of micrococci.

Syphilitic Onychia, a case of. Presented by Dr. FORDYCE.

The patient was a well nourished child, aged three years, of Italian parentage. When three months old her mother stated that she had an

eruption on the body and some sores in the mouth. The present condition had existed for about a year and presented a fairly typical picture of the non-ulcerative form of syphilitic onychia. The nails of the fingers and toes have all been affected, but the condition has spontaneously disappeared in several of them. She is now using mercury locally and by the mouth.

Dr. JACKSON would hesitate to name this case as one of syphilitic onychia, as there were many other causes for onychia than syphilis. The unusually blooming appearance of the child was strongly in favor of its non-specific character.

Dr. BULKLEY saw no reason for believing the child, or the disease of the nails, to be syphilitic, and said that the trouble could readily be an ordinary onychia, from lowered vitality.

Recurrent Epitheliomatosis. Presented by Dr. ALLEN.

Dr. Allen presented a subject of multiple epithelioma of the face and neck, similar to the case shown by Dr. Piffard. He had observed the patient for about ten years, during which time an eye had been destroyed by the cancer. Now, for the first time, the patient may be considered well. The patient illustrated the necessity for prophylactic treatment anticipating the clinical outbreak of recurrent and new lesions.

Dr. Allen advocated destruction of enlarged blood vessels with this view as had been done in this case. He employed the high frequency spark.

A. D. MEWBORN, Secretary.

BOSTON DERMATOLOGICAL SOCIETY.

NOVEMBER MEETING.

Dr. C. MORTON SMITH in the Chair.

A Case of Erythema Induratum(?) Presented by Dr. C. J. WHITE.

The patient was a distinctly intelligent, honest appearing Swedish woman aged thirty-nine and a seamstress by trade. The history given by the patient at three different intervals and after the closest cross-examination was always the same, but still totally inconceivable if true. Her relatives, according to her statement, have not been afflicted by tuberculosis and she herself has never had any persistent cough. She is, however, thin and does not look at all vigorous, but she attributes these conditions to her occupation, which she styles a hard one. As a child she remembers the fact that she had a very severe attack of eczema (?), but she recalls no details about this illness. About eight years ago she felt run down and had a "sore" near her ankle. There was no pus present but the lesion pained her and was quite deep. She had no treatment except the local

application of vaseline and after a few weeks the lesion disappeared. From this time on *scars* developed and gradually appeared higher and higher up the leg and thighs without any further development of sores or preceding lesions of any kind (!). She paid no attention to these phenomena because they caused her no inconvenience. About three months ago another "sore" formed on the upper outer thigh, which went through the same evolution as the first, producing pain, malaise and lack of sleep, but in a few weeks healing by crust formation and cicatrization.

Six weeks ago the present active lesion began and when first seen by the writer resembled a hard, dull red, tense, deeply seated furuncle about a half inch in diameter situated on the lower outer third of the left leg. In addition to this active lesion there appeared many (perhaps thirty on each lower extremity) oval or roundish, markedly isolated scars, with pale center, but somewhat pigmented peripheries, profusely scattered on the lower leg, but progressively less abundant until the trunk was reached. There was never any tendency toward grouping—in one or two instances only were two cicatrices contiguous. As a rule they were about one-quarter to one-half inch in diameter.

On the upper extremities the same conditions existed, but in far less abundance; but the other features exhibited on the legs and thighs were closely reproduced on the forearms and upper arms. A few similar scars were present on the upper chest. There were palpable post-cervical glands. No stigmata of syphilis were present.

For diagnostic purposes iodide of potash was administered internally, but all external applications were purposely forbidden. One week later the patient was again seen. The active lesions had caused considerable pain in the interim and had grown possibly larger and more angry looking and there was a small opening in the top. The iodide was stopped and iron substituted with the external application of black wash and ichthyol ointment. After a further interval of ten days, the patient returned and said that the second form of treatment had proved equally unsuccessful, that her leg had swollen and that the "sore" was worse. Malt and cod liver oil were recommended internally and a tartrate of iron and potash wash externally with a boracic acid ointment. Finally, at the expiration of three weeks (Nov. 29), the lesion has somewhat subsided, but is still open. There has apparently been no formation of pus or anything resembling a core or a slough present and the ulcer remains red and painful. The patient feels that the cod-liver oil has benefited her, but persists in her idea that all the prescribed applications have caused pain and unfavorable effects. Unfortunately, it has thus far proved impracticable to excise this lesion for purposes of investigation.

As will be seen from this history the incredible story is persisted in that only three active lesions have ever been noticed and yet the woman bears perhaps seventy-five to one hundred scars on her body.

Dr. Post said that syphilis was out of the question.

Dr. JAMES C. WHITE thought that no reliance could be placed on the patient's statement that the numerous scars had developed spontaneously and immediately as scars without any antecedent inflammatory or destructive process. He could not refer the cutaneous changes present to any definite dermatosis.

DRS. BOWEN AND HARDING did not regard the case as syphilis, but were inclined toward the idea of a tuberculide.

Dr. BURNS referred to the custom among the lower classes of Sweden of sleeping in bags which were handed down from father to son. He stated also that bone tuberculosis was common in Sweden.

Dr. SMITH noted that the scars present showed signs of distinctly different ages.

Dr. C. J. WHITE was inclined to relate this case to tuberculosis or its allies.

A Case for Diagnosis. Presented by Dr. C. J. WHITE and Dr. BURNS.

The patient was an Irish girl, aged nine years. In March, 1903, her skin was attacked by a disease somewhat similar to the present eruption and was not entirely well until the following September. A second outbreak appeared in the following December and persisted until March, 1904. The first attack was "somewhat different" from the present or third one, and was attended by considerable "pus, oozing and crusts," while the second started as "red pimples," which spread over the whole body and caused such prostration that the patient was obliged to lie in bed for a week.

The present attack began on August 1st "in the form of a rash" on the neck and spread to the ears, over the forehead, face, body and legs in the order named, the legs becoming involved one week after the first appearance of the outbreak. A few days previous to her entrance to the Skin Ward of the Massachusetts General Hospital the child had several attacks of cerebral anæmia not severe enough to cause loss of consciousness but to produce intense pallor and a feeling of faintness. Such is the history given by the mother of the patient.

On entrance to the hospital, September 13th, the scalp presented a thick scaling condition. The cheeks and forehead were moderately erythematous and covered with whitish scales. The chin, oral and nasal surfaces were free. The anterior portion of the trunk showed diffuse erythema with considerable general desquamation. On the lower part of the abdomen appeared numerous millet seed vesico-pustules, which lay very deep in the skin and seemed not to rise above the level of the surface. It was not easy to break the top of these rather unusual lesions—in fact it was necessary to incise them quite deeply in order to ascertain the nature of their contents. Following this incision a droplet of sero-pus exuded, which was plated by Dr. Burns and proved to contain the white and yellow staphylococcus. These minute lesions were grouped and from the subsequent study of the case seemed to be the precursors of the later developments of the disease. Between these vesico-pustules were islands of normal tissue. The back showed similar conditions. The upper arms

presented considerable erythema, numerous pin-head, deep vesicles and much desquamation, but the process gradually decreased in severity until the backs of the hands were reached when the vesicles reappeared in considerable numbers, in places becoming confluent. Both thighs were covered with red, dry, scaling areas from the size of a pea to a quarter of a dollar and scattered between these older areas were the minute vesicles, discrete or grouped in twos and threes. The lower legs exhibited desquamating areas only, which were circumscribed, confluent or gyrate in contour.

The examination of the internal organs at this time revealed nothing but a systolic murmur at the apex of the heart. For a few days the child seemed to do well, the vesicles disappearing and the skin desquamating. Then there was a sudden change. An acute endocarditis and nephritis developed and the vesicles—always deep and minute—reappeared and within forty-eight hours had invaded the whole body surface. It was at this time that the bacteriological examination of the sero-pus was made. The child was now very ill, so ill in fact, that we hesitated to make any biopsy for histological study. The temperature for ten days ranged from 100° F. in the morning to 103° in the afternoon. The pulse was very irregular, intermittent and poor in quality, running from 110 to 140 beats per minute—the increase in frequency being coincident with the rise of temperature. Respirations were fairly constant, reaching thirty-five to the minute for the first four days.

September 15. New crop of vesicles (becoming pustular) disseminated over trunk and legs.

September 18. Another outbreak of vesicles on dorsum of feet and back of hands.

September 19. Skin universally desquamating in pieces varying in size from small plaques to large sheets.

September 24. Few new vesicles over abdomen. These are larger than those first seen and are grouped and tend to become confluent on an erythematous base.

September 27. Desquamation stopped. Skin generally erythematous. Absence of burning and itching thus far very conspicuous.

October 1. The child now passed into the care of Drs. Bowen and Towle and I am indebted to them for the subsequent data. Few new pin-point vesicles have appeared and are filled with a creamy white fluid.

October 5. Desquamation again quite profuse. Process simulates previous attacks—erythema, vesico-pustules and finally desquamation.

October 10. Temperature, 103°. Pulse, 130.

October 12. Temperature, 101°.

October 14. Temperature normal, where it has remained until the present time.

From October 16 to November 5 the skin has desquamated in fine flakes or large sheets. The skin, especially of extremities, remained a

deep, bluish red, infiltrated, and in places, especially over the joints, fissured.

November 5. The general condition of the patient unchanged, but a new cutaneous appearance has developed. A fine, pinkish-red, slightly scaling, papular eruption has appeared, principally over the abdomen, while on the left thigh there is a linear lesion about $3\frac{1}{2}$ inches long, deep bluish-red in color, elevated, firm, elastic and composed of confluent, pea-sized scaling papules.

Dr. JAMES C. WHITE felt that the case was one of those rare and multiform types of dermatitis which have been recorded as associated with endocarditis and due to some unexplained toxic influence. The latest phases, the scaling areas, suggested the instances of psoriasis, which sometimes follow upon attacks of universal scarlatiniform dermatitis.

Dr. BURNS, who had followed the case closely in the ward, was impressed by the probability of toxæmia. He had been greatly interested in the various phases which the skin had shown—at one time he had made the diagnosis of pityriasis rubra.

Dr. TOWLE considered the toxic theory the most probable.

Dr. HARDING thought that the possible ingestion of noxious drugs should be carefully eliminated from the case.

Dr. C. J. WHITE thought that there could be no doubt as to the presence at the climax of the disease of auto-intoxication, and referred especially to an article by Lebet (*Annales de Derm. et de Syph.*, 1903, p. 912), entitled *Dermatites Pyémiques*, in which he mentions among others two cases of endocarditis observed by Finger (*Ein Beitrag zur Kenntniss der Dermatitis Pyämica*, *Wiener klinische Wochenschrift*, 1896, No. 25), in which there followed papules the size of a grain of mustard to a lentil, surmounted by pustules; and again in which there followed pale red macules and nodules and infiltrations in the form of cords, raised and showing a tendency toward hæmorrhage. Dr. White said that the chief interest for him in the present case was what to call the cutaneous outbreak preceding and following the toxic pyoderma.

A Case of Tuberculosis Cutis and Elephantiasis. Presented by Dr. J. T. BOWEN.

Bertha T., a clerk, aged thirty-one, was born in Pennsylvania. Her mother's father and sister died of tuberculosis of the lungs. The patient herself had pleurisy two years ago. According to her story the lesion upon her cheek appeared shortly after vaccination, during her first year of life, and soon reached its present size, where it has remained unchanged ever since. At the age of seven she scraped her lower leg and during the following winter had a series of abscesses containing pus. These appeared on the leg, remained open until their disappearance during the next summer and returned in situ in the following winter. This cycle has repeated itself up to three years ago, when the present cutaneous lesions began to develop. At that time a red, angry, pea-sized papule presented itself on the left knee. This first lesion was followed by many others, which were painful, tended to coalesce and then disappeared leaving a red, atrophic skin in their wake.

Three years ago in the following summer the leg suddenly swelled, accompanied by high fever, great pain, redness and chills. This acute attack lasted three days leaving the patient weak and exhausted and producing a marked increase in the more superficial papular process, which then began to advance up the thighs. Subsequently the acute deeper process recurred at intervals of three to five weeks and have persisted ever since. These attacks have all come on with the utmost suddenness so that at a moment of apparent health she would suddenly be seized by "a terrible pain in the leg," which soon became red and swollen and produced a feeling of intense malaise. These attacks have usually persisted for three days and then subsided, leaving "lumps in the skin."

The patient entered the Skin Ward of the Massachusetts General Hospital on November 7th, 1904. At this time the measurements of the two legs were as follows:

	<i>Left Leg.</i>	<i>Right Leg.</i>
Circumference at perineum.....	27.5 in.	24. in.
Circumference at knee.....	18.5 in.	16.25 in.
Circumference at calf.....	17. in.	15.5 in.

The normal skin was smooth, of a good color and not boggy, but showed at frequent intervals abnormal areas varying in diameter from one-half to six inches, gyrate in outline, red, and infiltrated. In addition there appeared many brownish nodules, smooth, translucent, elevated or level with the surrounding skin, infiltrated and covered with conical scaling masses.

Ten days after entrance the patient felt chilly, had a headache and pain in the left leg. The temperature rose suddenly to 103°F., the pulse to 120 beats per minute and the respirations to 37. The leg was apparently swollen, red and very painful, especially along the inner aspect. In twenty-four hours all evidences of this intercurrent malady, except the pain and a slight redness of the skin, had practically disappeared. The catamenia then began.

When presented before the society the patient exhibited a typical patch of lupus vulgaris upon the cheek. This area had improved considerably under the influence of eosin externally and the X-rays and exhibited much less infiltration. The left leg had also shown the benefit of rest and treatment and had decreased a good deal in size, but there were still marked nodules and deep infiltrations with hypertrophy of the horny layer. There were few typical lupus nodules to be seen.

Dr. BURNS would accept the diagnosis of lupus vulgaris.

Drs. TOWLE AND C. J. WHITE also agreed with Dr. Bowen's interpretation of the case, although the appearance of the disease at one year of age was certainly unusual.

Dr. HARDING, however, said that he would have to find more evidences of lupus than his hasty examination had permitted before agreeing to this diagnosis.

Dr. JAMES C. WHITE said that he did not wish to deny the correctness of Dr.

Bowen's views, but that he could not regard this case as in any way typical of lupus, for it presented many anomalous features. It was true that we might have concomitant attacks of lymphangitis and consequent elephantiasis in lupus of the extremities, but he would expect to find more evidence of destruction of the tissues in the presence of scars, large or small, and also more noticeable indications of activity in a case so extensive and of such long duration as this. The extensive and marked melanosis present in this case was also an extraordinary manifestation in cutaneous tuberculosis. It was not improbable that simple elephantiasis would account for all the surface lesions present. The affected area on the cheek was also remarkable for its small size and absence of scar tissue after a duration of twenty-nine years.

Dr. BOWEN had brought the case with the firm conviction that the disease in question was tuberculosis, and he considered the facial lesion as quite typical. The most interesting feature to him, however, was the fibrous tissue changes which were undoubtedly due to the previous attacks of lymphangitis. He did not consider the pigmentary changes any evidence against the diagnosis of lupus, for these could be attributed to the elephantiasis, but the hardness of the nodules raised a possible doubt in his mind, but these again could be due to the subsequent and intermediary attacks of lymphangitis.

Trophic Ulcer or Malingering? A Case presented by Dr. J. T. BOWEN.

The patient, a schoolgirl, aged sixteen, had noticed for some years strange sensations in the index finger of her right hand. At times the nail of this finger had looked paler than the others and had grown thicker. No real trouble, however, developed until the month of February, 1904, when severe pain was felt in this same finger. This pain extended up the arm radiating to the right shoulder. A black spot then appeared at the finger tip and "within fifteen minutes" the skin of the entire terminal phalanx turned black accompanied by great pain. The following day the patient went to the City Hospital, where the finger was scraped and was afterward treated for two months. In May the terminal phalanx was amputated at the Massachusetts General Hospital. The stump healed very slowly and at the end of a month a black line appeared along the suture. Pain was marked and incessant but not so severe as in the previous February. The second phalanx was then cut off and the stump remained open until September.

In October another attack of intense pain developed, the pain and the gangrene spreading as in the February attack. On entrance to the Skin Ward of the Massachusetts General Hospital there was found at the base of the index finger an ulcer $1 \times \frac{5}{8}$ in. in diameter, quadrilateral in shape, with irregular edges and floor covered with a homogeneous black crust. The index finger and the palm up to the wrist were swollen and slightly erythematous. The whole hand was extremely sensitive to pressure. A thick, dry dressing was applied and never removed except in the presence of the medical attendants.

When shown to the society the ulcer was practically healed and the great sensitiveness had almost wholly disappeared.

Dr. TOWLE, who had followed the case in the ward, spoke of the remarkable improvement under sealed dressing. This might or might not point to the theory of malingering, which had been entertained.

Dr. JAMES C. WHITE said that it would be impossible to determine from the existent condition whether this was a case of artificial origin or not. Such cases of idiopathic rapid necrosis did occur in his experience, and he thought the history of the present case pointed more toward true gangrene.

Dr. BOWEN was not ready to call this a case of malingering, although he regarded the unusual sensitiveness to pain with possible suspicion.

Dr. C. J. WHITE favored the view of true gangrene.

A Case of Syphilis (?) Presented by Dr. C. J. WHITE.

The patient was an unmarried Irishwoman, aged fifty. For the last five years she says she has had trouble with her eyes, which today show a marked blepharitis with some indistinct opacities of the cornea. Nearly four years ago the scalp began to be affected and the trouble has persisted continuously ever since. Six months ago three superficial, crusting lesions developed on the lower legs and were present when first seen by the writer.

At her first visit, on November 9th of this year, her scalp appeared, from a distance, as though favus had been rampant for some years and had spread over her entire scalp, for the skin was red, tense, shining and with the exception of scattered and still numerous islands of hair, markedly alopecic. On closer inspection it was seen that there were many large and small round, full, flat-topped pustules scattered over the whole scalp from the forehead to the neck and from one ear to the other. Out of the center of each pustule was found growing a hair, normal in color and in length. The skin over the calvarium was thin, red, glistening and atrophic, but was not bound down to the skull and showed no isolated depressions or individual scars. The patient was quite deaf and showed across the arch of her soft palate a broader line of dull redness and she complained of repeated sore throat during the last year.

Apparently the woman has received no treatment during all these years for any of her symptoms—eyes, skin, ears or throat. Experimentally iodide of potash was recommended internally, but external applications were interdicted. On October 18th the patient was again seen and it was noted that many of the smaller pustules had entirely dried up while the larger ones had distinctly decreased in size. The cutaneous lesions on the leg had practically healed leaving only suggestions of crusts and the patient said her eyes felt better although no appreciable changes were observed.

The members present were all agreed that syphilis was probably the cause of the peculiar condition of the woman's scalp, but no one was willing to make a positive diagnosis.

A Case of Dermatitis Venenata? Presented by Dr. HARDING.

M. M., a young woman, seventeen years of age, presented two weeks ago on the fingers and thumbs of each hand pustules and vesico-pustules

varying in size from a millet seed to a large pea. On the back of the right hand was an area the size of a silver dollar, composed of closely agglomerated pustules on a reddened and somewhat boggy base. Black wash was applied under which the condition subsided somewhat, but a lymphangitis of the right arm developed two days later accompanied by glandular swelling in the axilla. Under a 12 per cent. solution of ichthyol the cutaneous and the lymphatic disturbances improved, but vesico-pustules still persist. A recent impetiginous eruption has appeared in the left eye-brow and behind the right ear.

A similar attack occurred a year ago while the patient was working in a cigar factory, but this year the present eruption developed although there has been no contact whatever with tobacco.

Dr. JAMES C. WHITE looked upon the case as due to an infection with staphylococci.

Dr. TOWLE considered it a trade dermatitis with secondary infection.

CHARLES J. WHITE, Secretary.

REVIEW of DERMATOLOGY AND SYPHILIS

Under the Charge of JOHN T. BOWEN, M.D.

INFLAMMATIONS.

By H. P. TOWLE, M.D., Boston.

Erythema Exudativum, Gastro-intestinal Crises of, Simulating Appendicitis. POND. *Med. News*, N. Y., Sept. 10, 1904, p. 506.

Dr. Pond begins by referring to the cases reported by Dr. Osler of erythema with abdominal crises. The surgeon's interest in these cases, he states, lies in the fact that such cases may sometimes have associated with the erythema and the abdominal crisis a high temperature and pulse and continuous vomiting preceding the skin eruption. Under such conditions the surgeon may make a mistaken diagnosis and operate. Dr. Pond then reports a case in which the eruption did not appear for several days after grave intestinal symptoms. He considered operation seriously until the appearance of the skin manifestations gave him the clue to the correct diagnosis. The case was that of a girl aged nine. The family history was markedly rheumatic. The previous history showed that she had had attacks of a skin eruption, erythematous in nature, worse in winter. The present illness began January 15, when she went to bed

complaining of headache; 15 c.c. of castor oil was administered. On the following morning the bowels moved three times. At noon she began to vomit, and at 2 P.M. complained of severe pain about the umbilicus. Temperature 103. January 17, the temperature had risen to 104 at 4 P.M., the expression of the face was anxious, and she had vomited six times since noon. There was also present abdominal pain a little below and to the right of the umbilicus which was increased on pressure. January 18, temperature 98.6, pulse 110. January 19, she was admitted to the hospital. Temperature 101. Pulse 100. It was noted that she moaned and cried in her sleep. January 20, was comfortable; temperature 100, pulse 88. January 21, red blotches appeared on the face and hands at 8 A.M.; temperature 99.5; pulse 88. The skin eruption was evident first on the face and consisted of large, bright red wheals whose color did not disappear on pressure. By late afternoon the rash had spread over the entire face and down on the neck, chest and arms. There was also present a small punctate eruption, capped by vesicles, some containing clear fluid, others a substance looking very much like pus. The abdominal pain was very severe. Urine was scanty, dark straw colored, acid, sp. gr. 1018, albumen 2.5 per cent., urea 1.5 per cent. Sediment—fine, granular and bloody casts, blood cells, amorphous urates, calcium oxalate crystals. January 22, A.M., eruption symmetrically arranged in large wheals over the surfaces of both thighs with an occasional punctate eruption capped with vesicles. January 23, temperature 98.6, pulse 70. Child listless. Rash disappearing. Pustules forming on right hand. Abdomen not tender. January 26, temperature 98.6, pulse 76. Discharged from the hospital. In comment Dr. Pond says that when the case first came under observation with the temperature 104, pulse 120, recurrent vomiting and spasms of the rectus, he thought of appendicitis and was confirmed in this diagnosis by the slight leucocytosis present, 10680, and if the symptoms had not subsided promptly he would have operated.

Erythemata, Visceral Manifestations in the. RUDOLF. *Canada Lancet*, March, 1904, p. 602.

Dr. Rudolf was inspired by Dr. Osler's paper to report the present case. Dr. Rudolf's case was that of a female, aged sixty-three, who had had recurrent attacks for two years. The first attack consisted of wheals on the left thigh, which lasted several months and with which were associated gastric symptoms. The second attack also consisted of wheals but this time on the right thigh. In the third attack, about a year ago, the ears became swollen and have never entirely recovered since. At the time of the examination both ears were swollen, hot, tender and bluish-red. There was a similar swelling around both eyes. Temperature 98-99.5, pulse 84. Urine scanty 1030, no albumen, no sugar, heavy deposit of urates. There was swelling over the bridge of the nose and obstruction of the nares so that the patient had to breathe through the mouth. Three weeks later she

lost her voice. Three weeks later still there developed tracheal obstruction with inspiratory stridor. Relieved under morphine and atrophine. One month after this attack the throat and trachea were well, but the knees had become swollen, red, and tender. In May there was cough and swelling of the feet and several interphalangeal joints. In September there was recurrence of the obstruction in the throat which ended fatally.

Urticarial Wheals, Capillary Pulsation in. CARPENTER. *Brit. Jour. Children's Diseases*, July, 1904, p. 309.

Carpenter reports the case to draw attention to an unusual feature of urticaria—marked capillary pulsation in the wheals, causing alternate bleaching and blushing synchronous with the heart beats, unconnected with aortic disease but quite similar to that seen through a glass slide on the lips of patients with that disorder. The patient was a boy of two and one-half years with an urticaria of one day's duration. The wheals were large and prominent and many of them were surmounted by a diffused and clear exudate. Some were capped by tense bullæ. Capillary pulsation was a prominent feature in the various lesions and factitious urticaria was observed.

Erythema Contagiosa. ESCHERICH. *Abstract Jour. A. M. A. from Münch. Med. Wchnsch.*, No. 24, 1904.

The name was first given to the disease by Stricker of Giessen, but Escherich states that he has observed it for a good many years, first at Gratz, and later at Vienna. The disease resembles in many ways the eruptive fevers of childhood and was at first mistaken for German measles. It has an incubation period of from six to fourteen days, and appears in children, who are subjectively well, in the form of an intense redness and turgescence of the cheeks, which is often quite sharply limited by the nasolabial line, thus resembling erysipelas. Less frequently the eruption on the face is in the form of flecks or gyrate patches. In most cases are also present on the forehead, the region of the ears, and on the extremities scattered patches of bluish red erythema which sometimes coalesce. The eruption lasts from six to eight days and then fades gradually, first on the face and then on the extremities. There is no desquamation and no unpleasant sequelæ.

Erythemata, the Sclerotic, and especially Pemphigoid Sclerotic Erythema. (Les Erythemato-Scleroses.) CH. AUDRY. *Ann. de Derm. et Syph.*, Jan., 1904.

Cases of this rare disease have been reported under the titles of Chronic Erythema Multiforme and of Erythema Elevatum Diutinum by Crocker and Campbell, C. Fox, Dubreuilh, Hutchinson and a few others. Audry, however, rejects these names as unsuited to the case which he reports and adopts that of Sclerotic Erythema, which, he thinks, expresses

the clinical and microscopic facts better. Audry's case is similar to those previously reported in that the patient was young, that the first lesions were nodules which spread peripherally to form plaques which, however, still retained a nodular character, were elevated, of a bluish color and were surrounded by a healthy skin. Also the lesions had persisted unchanged for months and were without subjective symptoms. Audry's case differed from the other reported cases in that his case had outbreaks of bullæ. He reports the case as follows: Girl, aged seven. Family all living and in good health. Patient had always been well except for an attack of diarrhœa in infancy from which she had made a good recovery in about eight days. The present eruption began two years ago. Its onset was sudden, without known cause, without fever or malaise. The eruption was characterized at its beginning by round red spots, more or less elevated, which appeared almost simultaneously and on the parts now occupied. In a short time bullæ appeared abruptly, full of a clear liquid and springing from a healthy appearing skin without preceding redness or urticaria. These bullæ varied in size from a pea to a nut and never appeared on the site of one of the spots. They increased in size, crusted over and disappeared, all within the space of three or four weeks. The first bullæ appeared on the lumbar regions. Thence the eruption spread to the thighs and to a less degree to the legs. They have never been seen on the face or upper limbs where there were, however, numerous erythematous lesions. The erythematous eruption occupied the cheeks, elbows, dorsal aspect of the wrists and hands and fingers, the thighs, knees and, sparsely, the backs of the feet. These lesions persisted unchanged for eighteen months when a number disappeared slowly, some completely, others leaving more or less of a brownish stain. Subjective phenomena were absent and the general health remained good. Eight months ago a second bullous eruption appeared which was similar to the first in appearance, situation, and duration. Some of these bullæ disappeared with scarring. At the examination there were lesions on the cheeks, ears, elbows, upper and lower arms, wrists, knees, sparsely on the lower legs and most markedly over the articulations of the fingers, which suggested a disappearing erythema multiforme. The lesions were round, papular, elevated, firm, irregularly grouped on some parts, as on the face, isolated, as on the arms, and in plaques, as on the wrist. They were one and a half inches in diameter, of a bluish color and the surrounding skin was normal. Over the backs of the hands and fingers, especially over the joints, the skin was a trifle elevated, gray-blue, shining and sclerotic. This elevated and sclerotic area was the center of a zone whose margin was formed by an erythema of brown or violaceous color, somewhat elevated and slightly indurated. When seen again in January the patient had had a third bullous outbreak with hæmorrhage into some of the lesions. The contents of the bullæ had been absorbed but some crusts were still present at the time of the visit. The treatment had been potas-

sium iodide, with reported improvement. Histologically, specimens hardened in alcohol showed the chief changes to be deep down in the corium. There was found acanthosis of the epidermis; the vessels of the corium dilated and increased in number; disseminated inflammatory lesions about the blood vessels characterized by lymphocytes, some groups of plasma cells and quantities of nuclear débris, all scattered among the connective tissue fibers, which were themselves but little changed. There were also areas of connective tissue which were sclerotic and almost fibrous. The elastic tissue had disappeared. A blood count of fifteen fields showed four eosinophile cells present to one polynuclear and eleven mononuclear cells. The blood cells presented no morphological anomalies.

Erythème Induré Bazin, Further Remarks upon the Clinical History and the Histology. HARTTUNG and ALEXANDER. *Archiv f. Derm. u. Syph.*, LXXI., Bd. 2-3, p. 385.

Since their publication in the Archives for 1902, Bd. LX., the authors have seen four undoubted cases of the disease and one doubtful one and, therefore, believe that the disease is more common than is generally thought. After detailing the histories of the five cases they sum them up by saying that the histological picture and the clinical facts were the same in all of the cases. The eruption was solely on the extremities and consisted of small and large plate-like or nodular infiltrations in the skin, sometimes so adherent to the fascia that it seemed as if there was a tumor of the muscle. The excision of a piece proved this supposition wrong in every case. In every case occurred characteristic string-like thickenings branching out from the plates. The color of the nodules was sometimes a clear red, sometimes mixed with the color of stasis or suggesting an unclean, neglected skin. The majority of the lesions were attached to the skin although clinically there was seen, in single instances, to be a development in the subcutis with later attachment to the epidermis. In a single case there was pain deep in the skin which was followed by the development of a new lesion at the seat of pain. In all five cases the eruption had existed for years without subjective symptoms. In no case was there a quick and complete disappearance of the nodules. Some lesions, however, grew less thick, but there was never ulceration nor complete resorption. In every case the lesions were more sensitive in wet, cold weather. There was no splenic tumor and there were no changes in the blood. Histologically they divided the cases into two groups, those showing tubercular changes (two cases) and those showing inflammatory changes. The first case showed true tubercular changes, the second, tubercular and inflammatory changes. The first case was considered to be of undoubted embolic origin, the second of probable. In the other cases the only histological change was inflammatory. In cases III. and IV., they made many serial sections because of the similarity of the histological pictures to the other cases, hoping to find a true tubercle. But in

REVIEW OF DERMATOLOGY AND SYPHILIS. 137

this they never succeeded. Nevertheless, they believe that the changes were probably tubercular. In all of the cases the histological changes were in the subcutaneous layer. As a result of their researches the authors believe erythème induré Bazin to be tubercular. They also believe in their cases that the disease was of embolic origin. Whether the emboli are of living bacilli or of bacilli of weakened virulence, in large or small numbers, or of dead bacilli they cannot say. Finally, they state that their case is the fourth reported to have given a local reaction to tuberculin injections.

SYPHILIS OF THE SKIN AND MUCOUS MEMBRANES.

By WALTER C. KLOTZ, M.D., New York.

Inoculation of Apes with Syphilis. O. LASSAR (Berlin). (*Berlin Klin. Wochensh.*, 1903, No. 52.)

Encouraged by recent experiments of French investigators, the author was led, in spite of his previous failures, to again attempt the inoculation of apes with syphilis.

After encountering numerous difficulties, he finally succeeded in obtaining suitable conditions, and in October, 1903, a full grown male chimpanzee was inoculated with the secretion and tissue from the primary lesion of a subject in the florid stage of syphilis, who had not undergone any specific treatment.

After two weeks a reaction was noted at two of the sites of inoculation. These developed into typical primary ulcers, and were followed by a papular eruption on the arms, palms, soles and around the anus, accompanied by alopecia of the scalp. The lesions persisted for some time.

An orang outang inoculated on the penis three weeks before, had just begun to show a slight reaction, at the site of inoculation, the wound of which had promptly healed without any signs of inflammation.

Histological examination of the best developed primary lesion in the animal first inoculated, showed the characteristic anatomical changes found in the primary lesion in the human subject.

The author has not attempted to draw any general conclusions from his experiments, nor does he believe that they will ever possess much value from the pathological or hygienic point of view.

Ichthyosis of Syphilitic Parentage, Two Cases of. AUDRY. (*Jour. des Mal. Cutan. et Syph.*, XVI., 1904, p. 488.)

E. Fournier having previously pointed out that children suffering from ichthyosis frequently have syphilitic parents, the author considers the subject of sufficient interest to present another example.

The cases of the author were two brothers, two and eight years old; they had four brothers and sisters living, who were perfectly normal.

The father and mother were free from any trace of ichthyosis. The disease in these two children was typical; they were intelligent, well developed and free from any stigmata of hereditary syphilis. The father had been infected with syphilis fifteen years ago and had been treated by the author for characteristic syphilitic cutaneous lesions.

The author is of the opinion, that if a sufficient number of such instances could be collected, we should be justified in classifying ichthyosis among the congenital dystrophies, which are determined by syphilitic heredity. It would have been interesting to know in what order the healthy children and those suffering with ichthyosis were born, and whether the disease was in any way influenced by the time, or the virulence of the infection in the father. The author has, however, not touched upon this feature.

Syphilis and Cancer of the Mouth. AUDRY. (*Jour. des Mal. Cutan. et Syph.*, XVI., 1904, p. 487.)

The author having previously called attention to the probable connection between syphilis and cancer of the mouth, has collected a series of cases for the purpose of proving his former assertion. His cases are divided into those in which leucoplasia exists as an intermediary stage between syphilis and epithelioma, those in which epithelioma develops on the lingual or buccal mucous membrane, where there are stigmata of previous syphilis, scars, etc., and those in which there is only a history of syphilitic antecedents.

The clinical histories of cases included in his article apparently bear out his conclusions, but are not of sufficient number to exclude simple coincidence, other possible etiological moments of epithelioma being present at the same time.

Optic Neuritis, Imminent Blindness. Complete Cure by Injections of Calomel. JULLIEN. (*Jour. des Mal. Cutan. et Syph.*, XVI., 1904, p. 489.)

In an almost dramatic manner the author recites the pathetic history of a colleague, who, infected with syphilis ten years before, developed an affection of the left eye which did not respond to injections of the biiodide and other soluble salts of mercury, nor to internal administration of the iodides. The left eye continued to grow worse until vision was entirely lost, and on a diagnosis of sarcoma, the eye was enucleated, histological examination of the nucleated eye showing no signs of sarcoma. In October, 1902, the right eye became affected, at first there was color blindness and scotoma, by February, 1903, vision had become reduced to one-half. His eyesight continued to grow worse and for six weeks he was kept in a dark room and given injections of mercury oxycyanate. By April vision was one-eighth. In May, 1903, when all hope had been lost, the author began with injections of calomel, 0.005 gm., repeated every five or six days. In less than two months a decided improvement had be-

gun. On January 25, the twenty-ninth and last injection was given, and the patient was then entirely cured, vision being normal. The conclusions reached from the history of this case are that an optic neuritis developed ten years after the primary syphilitic infection, and in spite of the fact that the disease had been treated at its onset for several years with injections of soluble salts of mercury and also with the salicylate; that the subsequent optic neuritis was not influenced by similar injections, but that finally when all hope had been abandoned the sight of the unfortunate individual was saved by the patient and persistent use of calomel injections. The author takes this opportunity of paying a grateful tribute to Scarenzio, as the originator of this method.

The lesson to be derived from this case described by Jullien is very important and very interesting in its bearing on the general treatment of syphilis. It demonstrates the necessity of carrying out a vigorous and prolonged mercurial treatment in all affections of the nervous system, even when their syphilitic character is only suspected. It also goes to show that the efficiency of the injection method depends a great deal upon the manner in which it is employed, and upon the preparations used, and that the careless application of this valuable method has in many instances tended to impair its reputation.

Dermato-Syphilide, Clinical Observations on. E. FINGER. (*Berlin Klin. Wochensh.* XLI., 1904, p. 970.)

The author wishes to show that while, as a rule, secondary eruptions appear in a certain order or at a certain stage in the disease, strict adherence to this rule may lead to errors in diagnosis as to the time of the disease, as some recurrent manifestations assume the same form as the first eruption six months or a year after infection. He distinguishes two forms of the roseola, the small spotted and large spotted. The recurrent forms may assume an annular appearance from the onset and may be distinguished from the primary form by their brighter color, a persisting primary annular eruption generally showing a deeper purplish hue. These roseolæ, he states, may appear very late, and recur obstinately. He describes certain mixed forms, a roseola with a central papular elevation, a roseola which may assume a lichen type, a papular eruption in which the individual lesions appear about the size of a lentil, circumscribed, elevated, with smooth surfaces, easily mistaken for psoriasis vulgaris. Another type of papular eruption which he has frequently observed consists of a single central papule, surrounded by a group of smaller papules. Finally he mentions a type of case in which a lenticular papular syphilide has faded away leaving only a pigmented area. This pigmented area is immediately surrounded by a zone of normal skin, about which is grouped a number of small papules.

Tertiary Syphilis, Inoculability of. BARTHELEMY. (*Syphilis*, Vol. II., 1904, p. 401.)

While it is generally believed that tertiary syphilitic lesions are not capable of carrying syphilitic infection, the author expresses himself very much against this view, maintaining that no proof has ever been brought to show that they are harmless. He admits that cases of infection with tertiary lesions are rare, but have certainly been observed. He points out that this infrequency is readily explained by the fact that during the secondary stage the virus is more active, that there are a greater number of erosions, fissures, and plaques, and that the secondary manifestations recur more frequently, and that, moreover, the secondary period corresponds more to the adventuresome age of the human subject. In conclusion, he points out also that the division into secondary and tertiary stages is simply an arbitrary classification, an aid to study, that secondary lesions may appear as late as fifteen or eighteen years after infection, and that on the other hand precocious lesions of a tertiary type may appear very early, and are really very dangerous.

Papular Syphilide at Site of Former Syphilitic Ulcers. BALZER AND DANVILLE.. (*Bul. de la Soc. Fr. de Derm. et Syph.*, XV., 1904, p. 223.)

The patient in the case referred to in the above report contracted a chancre in June, 1903. Two months later he began to suffer with intense headaches and developed ulcerated syphilitic lesions on the face, trunk and extremities. Treatment was followed very carelessly and irregularly and in March, 1904, he began to have difficulty in swallowing. Examination at that time disclosed extensive ulceration of the pharynx, which subsequently led to incomplete adhesions between pharynx and palate; at the same time he showed a papular syphilide, situated at the margin of the scars of the former ulcerating syphilides.

Syphilis, Opinions on. JONATHAN HUTCHINSON. (*Berlin Klin. Wochensh.* XLI., 1904, p. 977.)

These opinions are not based on any new observations or experiments and carry only the weight of authority of their distinguished author. In the treatment of syphilis he considers the internal administration of Hydrag. cum creta in pill form, one or two grains at a dose, the best method. He keeps this up for two years uninterruptedly and advises that opium should be given in connection with the mercury in order to avoid diarrhœa. The treatment should be begun as soon as the diagnosis has been established, even before the first eruption. He allows marriage after two years of treatment. He does not believe in the existence of hereditary syphilis of the third generation, and does not believe that syphilis can be transmitted by tertiary lesions. He believes that a second attack of syphilis is possible, and that the disease can be transmitted to the offspring by

either the father or the mother. He does not believe that syphilis appeared in Europe before the year 1400. He believes, moreover, that characteristic teeth and interstitial keratitis are unquestionable signs of hereditary syphilis, and that certain tropical disease (Framboesia, Pinta, Yaws) are identical with syphilis.

Syphilitic Chancre (Suprapubic) becoming Gangrenous, and Followed by Malignant Syphilis. BALZER AND DANVILLE. (*Bull. de la Soc. Fr. de Derm. et Syph.*, XV., 1904, p. 220.)

The patient in this case was a male, forty-nine years old, who developed a chancre in the hypogastric region. The lesion appeared as a crusted ulcer with a deeply excavated gangrenous base, and the tissues for some distance from the ulcer were intensely inflamed. The patient's general condition was very bad; crusted, ulcerating syphilides appeared on the prepuce and upon the right forearm.

Tertiary Syphilis, Experiments as to the Inoculability of. PAUL SALMON. (*Syphilis*, II., 1904, p. 404.)

While the question of the inoculability of tertiary syphilitic lesions has never been definitely settled and while the opinion has been generally held that they can not transmit the disease, no direct proof has ever been brought to show that they are harmless, nor has it ever been shown clinically, or experimentally, that the secretion from a gumma contains the syphilitic virus. In the experiments carried out by the author, two apes were inoculated with the secretions from a gumma of the arm in a syphilitic human subject, who had been infected with syphilis eight years before. The inoculation proved negative in both monkeys. Seventy days after the first experiment both monkeys were again inoculated with the scrapings of secondary papules from two human subjects. The first of these two subjects had been infected three and one-half months before, the second was in the early secondary stage. The inoculation in the case of the monkey inoculated with the secretions of the second patient proved positive, the other monkey died in the course of the experiments. The author concludes that tertiary syphilitic lesions cannot produce infection and that such an inoculation furnishes no immunity against syphilis. While the author's views may be correct, his experiments can hardly be considered conclusive proof, especially when it is considered how many experiments in inoculation with primary and secondary syphilis have proved negative. The fact that one of these same monkeys was subsequently successfully inoculated with syphilis is, however, additional evidence in favor of his views.

Gumma of the Forehead and of the Nose. GAUCHER AND TOUCHARD. (*Bull. de la Soc. Fr. de Derm. et Syph.*, XV., 1904, p. 220.)

The patient was a male, twenty-two years old, who gave a distinct history of hereditary syphilis, but denied ever having acquired syphilis.

The gummata were four in number, each about the size of a nut, and were followed by a gumma of the nose. The case is of interest only on account of the late development of serious syphilitic lesions in an hereditary syphilitic subject, who had never acquired the disease.

BOOK REVIEWS.

La Pratique Dermatologique. Tome IV. Edited by MM. BESNIER, BROCA, and JACQUET. Paris: *Masson et Cie*, 1904.

This fourth volume brings to a close the publication of the work which the French may regard with justice as a monument to their school of dermatology. It is, therefore, just to attempt now an estimation of it as a whole. The reviewer has read most of the articles *in toto*, others only where they touched upon moot points, a very few, not at all. The task was completed some time ago and an opinion was formed then which the lapse of some months and maturer consideration have not changed. Its technical perfections of paper, press work and illustration have been referred to in reviews of the earlier volumes. In these respects it is incomparable in the literature of skin diseases, but it has its faults and they are chiefly those of systems. It is verbose to a degree, four volumes of over a thousand large pages each. Granting that it is not food for the beginner, the objection remains that it is not complete enough to serve as an encyclopedia of dermatology for two reasons. While references to foreign productions are more numerous than is generally to be expected in Continental literature, the bibliographies are often far from full. Secondly, there are minor affections which have been omitted altogether, while every hair-splitting refinement of Gallic origin finds a prominent place. It is to be expected in a system that articles should overlap to some extent, especially when no classification has been adopted. There is no chance for disappointment here in that regard. Alopecia areata crops up certainly once in every volume, every time with a refreshingly novel consideration.

As regards the individual contributions aside from the insistent objection of prolixity, there is no question that each contributor has put into his article the best of which he was capable and that in the main ideas are clearly stated. He is laboring, however, under the disadvantage of having his work set like a gem by itself with no demonstration of relationships which come before and after, not, as it should be, a part of a harmonious whole. We are all ready to grant that stability is not a marked characteristic of notions as to the nature of skin affections, but, even so, it would have been better probably if the latest French cry had not so generally been the dominant note. We in other lands are not quite prepared as yet to adopt parapsoriasis, seborrheides, or even tuberculides. Still less are we agreed as to their etiology. It must be said, however, that the savor of all this is distinctly fresh and in it appears food for thought. If one regards *La Pratique* as of, for and by the French, all these objections vanish into thin air and we may be thankful for the complete exposition of the views of a modern and active corps of workers who are endowed with an unusual acuteness of vision.

Bodin opens the volume with diseases of the hair, which he divides into non-parasitic, parasitic and nodular, the last again into the two first, a unique classification. He does not hesitate to call monilethrix and trichorrhexis nodosa parasitic, but lets himself down easily in the text. Lenglet seems willing to accept parakeratosis as something different from the ordinary run of keratosis although he holds that the lesions have nothing anatomically characteristic.

Jacquet has an admirable exposition of prurigo in which he takes us Saxons

to task for forgetting that it is Willan, one of ourselves, not Hebra, who is responsible for the description of the disease and for following the Vienna school in limiting our conception of it to the pure Hebra type, wherein he is quite right. He goes at length into the long controversy over the genesis of the papule and the precedence of lesion or pruritus, sticking stoutly to his own idea of the priority of itching.

Audry's sixty pages on psoriasis is a production, distinguished for many good points, but especially for his delightful demonstration that it is possible to describe minutely the histology of the disease without using Unna's parakeratosis and acanthosis. Darier seems to have abandoned definitely his early conception of psorospermiosis as a protozoic infection, but declines to accept White's keratosis follicularis as a sufficient substitute.

A curious instance of the way the ground is gone over and over is given by a short article by Trémolières headed "Rashes," an English word meaning every kind of eruption, under which he includes the exanthems, variola, scarlatina, etc. Castex concludes that the bacillus of Frisch in rhinoscleroma is not specific, and that it is analogous to, but not identical with, the bacillus of Friedlander.

Perrin divides sarcoma on a clinical basis and goes so far as to say that in their diagnosis, because the microscopical picture presents some "real difficulties of interpretation," he considers the question from a purely clinical viewpoint. He includes melanoma and omits the whole lymphoid-celled group.

We may reasonably suppose that Audry holds a brief for his brethren when he writes on seborrhœa. He distinguishes a pure seborrhœa in the sense of Rayer, Fuchs, and Sabouraud, and the seborrhoides which are distinct from the first, from each other, but have as a common character the seborrheic state. Audry knows the literature and reviews the findings of other men. In spite of this he persists in describing pityriasis sicca among his seborrheides and persists in employing this hideous compound which, if it means anything, is etymologically a circumscribed, inflammatory growth of a flow of oil. Unna disappears in an inundation of "*seborrhéide eczématisante*." This group was an invention in the beginning by the Goddess of Discord. At the present writing we cannot understand even ourselves. In spite of this confusion, there is no difficulty in any observer's recognizing Audry's descriptions, his anatomical and clinical pictures. In curious contrast to this discussion is an illuminating discussion of sweat gland disorders by the same man.

Sabouraud seems less insistent than in former years on his species of trichophytions, in fact, he seems much less concerned about them than he is regarding their sources and the interest which they should excite among those whose field is the study of vegetable parasites. It is an able and interesting, not to say suggestive brochure.

Jacquet has a long exposition of the disturbances of cutaneous sensation and Lenglet one on the trophoneuroses in this volume, which, of necessity, overlap in places. Lenglet's division is particularly minute, the differences so fine that they are hard to follow, at least for a practitioner who is not a neurologist.

Lafitte has had the tuberculosis assigned to him, the verrucous lesions and lupus vulgaris having been discussed for no reason assigned out of their context in preceding volumes. He treats under a heading of cutaneous tuberculosis, ulcerative, gummatous, suppurative, vegetating lesions and lymphangitis, which are frankly tuberculous and the tuberculides, lichen scrofulosorum, follicles and acnitis, acne cachecticorum, acne scrofulosorum, lupus erythematosus, Bazin's erythema, Mibelli's angiokeratoma and Hebra's pityriasis rubra. The basis of differentiation is that the tuberculides occur in the tuberculosis but no bacillus can be discovered in them by staining or experimentation. The reviewer has used his best endeavor to follow with complete unsuccess the author's attempt at differentiation of the necrotic papules which we know under so many inappropriate, when not utterly

ridiculous names founded on hypothesis, misconception or nothing at all, but carefully preserved, provided only that they be French.

Darier has in the same way gathered together the odds and ends of skin tumors not considered in some other place. He rehashes all the old views of the etiology of neoplasms and omits most of the new ones. One looks in vain for Ribbert's name. Under parasitism, he takes a passing shot at blastomycosis as a "pure, spontaneous" affection, which was never claimed for it, and dismisses it as not proven. Botromycosis he cheerfully accepts as an entity presumably because he considers that its etiology has been established by these same French when, in point of fact, it is a banal granulation tissue with a start in an ordinary pus infection. This may seem an extreme statement. If the reader thinks so, let him see for himself. The rest of the monograph is fragmentary, but it is astonishing how many moot questions Darier manages to settle offhand, for example, that of melanoma and the so-called endothelionia of the scalp.

Raynaud writes of the tropical phagedenic ulcer, Merklen of urticaria, Perrin of atrophic conditions, Dubrenilh of warts, and Darier of vitiligo. Bodin's paper on xanthoma is admirably complete, clear, the best exposition of the subject since Török's essay, a monograph worthy the name. He disagrees with the investigators who hold that the differences between xanthoma vulgare and diabeticorum are of greater importance than their analogies, accounting for them by the soil prone to degeneration in which the latter occurs.

Xeroderma pigmentosum by Du Castel and zona by Rist, closing the volume, call for no particular comment since they follow lines of patient research.

J. C. J.

Die Männlichen Geschlechtsorgane. Von Prof. Dr. C. F. EBERTH. Mit 259 zum Theil farbigen Abbildungen im Text. Gustav Fischer, Jena, 1904.

This book is part of a Handbook of the Anatomy of the Human Body in eight volumes, edited by Prof. Dr. Karl Bardeleben of Jena. It treats of the testicle, epididymis, seminal duct, the appendages of the testicle and epididymis, the semen, blood vessels and nerves of these organs, the spermatic cord and its membranes, the prostate, Cowper's glands, urethra, penis and scrotum. The author has not restricted himself merely to the macroscopical and microscopical anatomy, but largely deals with the physiology of these important organs, and considers also changes due to old age, the effects of castration, etc. The development of the genital organs is the subject of the last chapter. This very exhaustive book will be of great interest and value to all those who are engaged in genito-urinary surgery.

H. G. K.

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THE ACQUISITION OF SYPHILIS PROFESSIONALLY BY MEDICAL MEN.

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Read by title before the Pan-American Medical Congress, Panama,
January 4, 1905.

THE object of this paper is to present in as realistic a manner as possible a danger to which medical men are continually exposed, and to draw attention to the indifference they exhibit toward the terrible calamity of infection by syphilis. I shall never forget the impression one of my friends made on me. I sent him a patient with epithelioma of the tongue, but warned him that the man was suffering from secondary syphilis with mucous patches in the mouth. He took the information so coolly that I said, "Are you not at all afraid to operate on such people?" He said, in reply, that he would operate on a man with early syphilis as readily as on any other. It was a charity case, yet this surgeon was willing to take the risk of being inoculated by the sputum or by a bite, not through conscientiousness, nor even from bravado, but because the possible consequences seemed not to appeal to his imagination. And he was willing to run the risk of bringing to his family the malady that has more ways of tormenting the human race than any other in the round of medicine. Not long before I had seen a very dear friend stricken down in the midst of an active surgical career, and in a couple of years transformed from a purposeful, decided operator into a palsied, aged man, quickly to die. These accidents strike medical men much more frequently than personal experience or statistical data indicate. By far the greatest number of infections would appear to occur in surgeons, especially in genito-urinary surgeons. It is the old story of handling edged tools, with, in addition, a most virulent poison awaiting a favorable point

of inoculation. Next to surgeons come obstetricians and gynecologists, while the remaining infections are scattered promiscuously throughout the other branches of our profession. The following list consists of seven cases. In two the virus was inoculated in cuts received while operating on patients suffering from syphilis.

The first was a physician, about thirty-five years of age, from one of the Middle States, who, while on a short visit to San Francisco, broke out with a severe rash. I found a macular syphilide of the trunk, limbs, face, palms, and soles. Both epitrochlear lymphatic nodules were swollen, and there was a large packet of swollen lymphatic nodules in the left axilla. He then gave the following history: Seventy-two days previously, while circumcising a man suffering with chancre of the foreskin, he slightly wounded himself on the outer side of the left forearm a little above the wrist. Sixteen days after the operation, an ulcer covered by a black scab appeared in the situation of the wound. This scab annoyed him while on the train by the edge of his cuff catching in it. The lymphatic nodules at the elbow and in the left axilla began to swell, and the rash developed in due course. When he called on me there was a dark red spot, the size of a nickel where the ulcer had been.

Another physician, a man thirty-one years of age, came to me on account of a widely spread papulo-roscolar rash. He said that three months before, while removing the breast of a woman forty-seven years of age, for what was supposed to be a cancer, he struck himself with a knife under the nail of the left ring finger. The finger afterwards had felt a little sore, but no serious trouble arose for about two weeks. He then got an atrocious pain under the nail, with swelling and redness, followed in a short time by terrific headaches, which endured up until the time I saw him. The roscolar rash developed about six weeks after the operation. Such experiences teach us the value of thoroughly washing off and burning out every wound received while operating on any case where there is the least suspicion of the presence of syphilis. The rending pain above referred to is a usual occurrence in chancre involving the nail bed, and the doctor's conversation while under its stress could not be said to be without sin. Yet considering the provocation, one could say it was without reproach before men. Another acquaintance who inoculated himself while operating for phimosis, and whose chancre also involved the nail bed, stilled his pain by bathing the finger in a strong solution of carbolic acid. He never grew tired of reiterating the expression of relief it gave him.

One of my patients was infected while attending the confinement

of a woman who neither in her own person nor in that of her newly born infant showed the least sign of syphilis. The physician in this case was a man fifty years of age, who came to me on account of an ulcer over the joint between the first and second phalanx on the radial side of the left index finger. This ulcer was crusted and had a dark red, raw ham colored, rolled, infiltrated border. There was no enlargement of the epitrochlear lymphatic nodules, or of those in the axilla. He said that fifty-seven days before he had been bitten by a pet parrot, and that the wound had never healed. He was able to precisely fix the date of the bite by coincident events. The discharge from the ulcer was examined for tubercle bacilli, but fruitlessly, and then our ingenuity was taxed in trying to guess the nature of the lesion. I did not then know that there could be a well-developed chancre of the finger without demonstrable swelling of the epitrochlear lymphatic nodule or of those in the axil. To further complicate the diagnosis, the next day after first seeing him, the doctor got swelling and redness of the entire back of the hand with streaks of lymphangitis running up the forearm. Thirty days after I first saw him, a papulo-roseolar rash appeared on the free cutaneous surface with roseolar spots in the palms and soles, and a slight enlargement of the lymphatic nodules developed in the left axil. These symptoms of course cleared up the diagnosis. Shortly afterward he got mucous patches in the mouth. The following history then came to light: The doctor had been bitten, as he said, by a pet parrot and three days afterwards he was called to a confinement case. The patient, as before mentioned, showed no signs of syphilis. The doctor thought he had his wound perfectly sealed with collodion and cotton. The child born seemed perfectly healthy, but shortly after birth developed well marked symptoms of syphilis. As far as the mother and child are concerned, this absence of symptoms at the time of confinement is not uncommon. It is one of the traps that a doctor may fall into.

This is a good demonstration of the ineffectiveness of the old method of **protecting wounds on the hands** with collodion and cotton. In all probability this infection would not have occurred in an equally careful practitioner if the present thin rubber finger cots had been available. We can also draw another moral from the case, for it shows the danger a doctor runs in playing with pets. And how enticing it is! I, myself, can hardly refrain from playing with a kitten, although I have constantly present in mind the dangers arising from scratches on the hands.

According to the literature, obstetrical manipulations afford, as

one would suppose they would, a favorable opportunity for infections of this sort. The woman is young and in the midst of her sexual life, and, therefore, if she is to have syphilis, will likely have it then. Two of the ten cases reported by Brandis were acquired while attending women in confinement. In these two instances the fruit was born dead, and the mothers subsequently suffered from condylomata of the genitalia.¹ In Prince A. Morrow's list of ten cases of professional syphilis, seven ascribed their infection to digital examinations or manipulations in obstetrical or gynecological work.²

Gynecologists, especially when examining the Pandoras that frequent the public clinics, continually run the risk of acquiring syphilis. The following is a good example of this class of misfortune:

A medical student, twenty-five years of age, asked my advice in regard to a dark red, lenticular, ten-cent-piece-sized, fairly firm lesion, situated on the dorsal surface of the web between the right index and middle fingers. This first appeared about two months before consulting me, as a flat dark papule. About forty days after this lesion was first noticed, he became aware of three enlarged lymphatic nodules in the right axil, a large one and two small ones. Eighteen days after this a roseolar rash appeared on the arms, trunk and thighs. He had examined a woman in the gynecological clinic, who was suffering from early constitutional syphilis, and the situation of the chancre was correspondent to the manner of inoculation. Later he had mucous patches in the mouth. In such clinics there should always be an abundance of vaseline or some other heavy fat to thickly anoint the hands before examining a patient. Rubber gloves are, of course, too expensive to come into general use, and besides they interfere with the sense of touch. All wounds or scratches on the hands should be carefully guarded, and, of course, on the least suspicion no one having a fresh wound should examine a patient. But, as a matter of fact, very few doctors and still less medical students, will refrain from making an examination through fear of contaminating themselves through a wound.

A number of medical men get chancres of the hands and fingers without being able to indicate any more precisely the mode of acquiring the disease than that they had attended a patient having syphilis. I have found three such cases.

¹ *Syphilis Gravis in Medical Men*. By Dr. Brandis. (*Deut. Med. Wochens.*, 1899, No. 21), also in *Brit. Jour. Derm.*, 1899, p. 210. These observations were made in Aix-la-Chapelle.

² *Jour. of Cutaneous and Genito-Urinary Diseases*, 1896, p. 125.

A doctor, thirty-five years of age, consulted me for a papulo-squamous syphilide of the trunk and limbs. The site of the initial lesion could be easily made out as a dark red macule toward the radial side of the dorsal aspect of the lower third of the right forearm. Besides the rash, there was a universal adenopathy, and a slight sore throat. The doctor said that he had attended a patient having syphilis over four months previously, and that the lesion on the arm had manifested itself about two months after attending this patient. The dates could not be precisely given.

Another physician, twenty-six years of age, consulted me on account of a chancre of the left side of the lower lip. He said he had first noticed it as a "cold sore" about two weeks previously. Some time before he had been treating a patient who was suffering from what he thought to be a chancroid, but which turned out to be a chancre. He probably infected his "cold sore" by thoughtlessly touching it after having handled the patient's lesion. He showed a roseola of the trunk with papular syphilides of the palms, soles and penis, and enlargement of the lymphatic nodules corresponding to the sore on the lip. He afterward developed mucous patches in the mouth.

A physician, twenty-nine years of age, consulted me on account of an ulcer, about the size of a nickel, showing profuse granulations and a dark red border, situated on the radial side of the terminal phalanx of the right index finger. There was no lymphatic engorgement, either at the elbow or in the axilla. He said that a swelling had appeared in this situation exactly one month before. Afterwards it broke down into an ulcer, and previous to coming to me it had been curetted. He also said that two months previously, that is, one month before the appearance of the lesion, he had treated a patient with phimosis. In the absence of lymphatic engorgement, a diagnosis of chancre could not be made. Fifteen days after I first saw it, that is to say, a month and a half after the appearance of the lesion, a roseola broke out on the patient's belly. Two days afterwards a slight swelling of the right epitrochlear lymphatic nodule was noted, and for a few days he had a temperature running from $99\frac{1}{2}$ to 100. Such cases show the value of always washing the hands after touching a patient so that the custom will harden down into an involuntary habit. A slight rinsing is usually sufficient. It is well not to make it too elaborate or it will not be done except on great occasions, and it is of the apparently slight occasion that one has to be on one's guard. A dilution of the syphilitic virus of 1 to 500 is enough to render it innocuous.³ Another excellent rule is to carry a couple of rubber finger cots in a little box in the vest

³ Pospelov *Arch. f. Derm. u. Syph.*, 1899, s. 92.

pocket. Any of those little tin boxes that patent or proprietary medicine houses shower down on us will do admirably for the purpose. If you do not happen to like the advertisement on its back, scratch it off with your penknife.

In the above seven cases one of the chancres was situated on the lower lip, the other six were on or near the hands where one would expect to find them. Of these six, three occurred at or near the index finger, and in all these six cases the initial lesion was situated on the dorsal surface or lateral aspect, none on the palmar aspect of the extremity. Pelizzari⁴ relates a case exactly in point. An aged male nurse while assisting a surgeon in removing some vegetations from a syphilitic woman, soiled his hands in the blood. He did not wash immediately, and acquired a chancre of the hand.

That such a washing may be ineffective goes without saying, for we have to do with an extremely virulent poison. Fournier⁵ relates that he has seen five chancres of the eye in medical men caught from sputum ejected from the patient. Three of them washed their faces well after the accident, but this did not prevent the chancre appearing. He advises using, instead of water, bichloride of mercury solution (1-1000).

The objection to the routine use of strong antiseptic solutions is that one may run into the danger one attempts to escape, for, as pointed out by Taylor,⁶ their employment, by causing eczema and fissures, exposes to the risk of infection.

Chancres of the fingers are relatively rare, and they almost always occur in physicians. All of my cases, except two, of chancre in this situation were in medical men, and of forty-nine cases that Fournier has seen, thirty were practitioners of medicine. Twenty of them were in physicians and surgeons, three were in medical students who were attending genito-urinary clinics, and the remaining seven were in obstetricians.⁷ According to the literature the index finger is the most frequently attacked.⁸ Next in order comes the middle finger. The thumb and the little finger seem to be the next most exposed, and the ring finger is rarely attacked. One of the dangers to the middle

⁴ *An. de Derm. et de Syph.* Series II., Tome IV., page 114.

⁵ *Les Chancres Extra-Genitaux*, pp. 194, 195, 196.

⁶ R. W. Taylor, *Journal of Cut. and Genito-Urinary Diseases*, 1898, p. 339.

⁷ *Les Chancres Extra-Genitaux*. A. Fournier. Pp. 447-450.

⁸ In all of Brandis' ten cases the chancre was situated on either the index or medius. *Syphilis Gravis in Medical Men*, by Dr. Brandis. In a list of ten cases of professional syphilis given by Prince A. Morrow, five of the chancres were situated on the index finger. *Journal of Cut. and Genito-Urinary Diseases*, 1896, p. 125.

finger seems to lie in its being allowed to rest on the lower lip while an instrument is being held in the mouth of a syphilitic patient,⁹ or on the external genitalia when the index is inserted into the vaginal canal.

Chancre of the eye is also a relatively rare affection, but the proportion of medical men getting it, to patients belonging to other classes, is as one to fifteen.¹⁰ The infection is usually transmitted through sputum during the examination or treatment of syphilitic patients. Many of them while having their throat or mouth examined are unable to resist a sudden attack of coughing, which sends out a spray of infected saliva into the doctor's face. Fournier has reported five such cases.¹¹ Debeck has reported six cases of chancre of the eye, three of which were in midwives. They were infected either while cauterizing lesions in the mouth of their patients, or by inoculating themselves with their fingers after having handled specific lesions.¹² Unless it is imperatively necessary to do so, a doctor should not stand or sit squarely in front of a patient while examining the mouth or throat. Usually one can see the mouth and that part of the pharynx directly in view, by standing beside the patient and looking into the mouth as one would look around a corner. In such a position one can quickly dodge if the patient spits or coughs.

One rubs one's eyes several times a day and this is usually done with the finger tips. A doctor, however, should train himself to rub his eyes with the knuckle of his index finger, as being less likely to be soiled with infectious material. Picking the nose should also be avoided by physicians as apt to convey infection. We may here stop to speak of a most disagreeable habit that George Washington mentions in his rules on conduct. Some people have a great desire to approach as near to you as possible while speaking, and their sputum often squirts and sputters into your face. I never yet have found that my shrinking back and half turning away had any effect on those confidential talkers, and the only means of penetrating their obtuseness is by a distinct reprimand. Several curious ways of doctors acquiring syphilis have been reported: as, for instance, holding between the lips a pen which has been soiled by the fingers after examining syphilitic ulcers. Otis mentions a case of a physician who got an initial lesion just within the right angle of the mouth, attributed to smoking a syphilitic friend's pipe.¹³ This might be denoted as a case of unprofessional

⁹ Whitehouse.

¹⁰ *Les Chancres Extra-Genitaux*, par A. Fournier, pp. 194, 195, 196.

¹¹ *Idem*.

¹² *Chancres of the Eye in Medical Men*. By Dr. Debeck. Contributions from the *Ophthal. Clinic, Medical College of Ohio*, 1883. Abstr. in *Ann. de Derm. et de Syph.* Series II., Tome VIII., p. 208.

¹³ Cullerier's *Atlas of the Venereal Diseases*, p. 43. Translated by Bumstead.

syphilis. Just think of a doctor using another man's pipe! C. W. Allen mentions syphilis as being caught by performing insufflation on syphilitic newborn infants.¹⁴ This is carrying life saving a trifle too far. Three cases, in Dr. Brandis' list of ten, previously mentioned, were attributed to digital explorations of the rectum, two followed wounds received while opening septic buboes, and one occurred after an operation in a case of necrosis of bone.¹⁵ Taylor has reported two cases and Morrow one where the infection was from the cadaver.

Taylor's first case was a young physician who infected himself while making a post-mortem examination, held eight hours after death on the body of a patient who died from malignant syphilis. The chancre was located on the left middle finger.¹⁶ Taylor's second case was a physician, twenty-six years of age, who infected himself while making an autopsy nine hours after death on the body of a prostitute. His chancre was located on the finger.¹⁷ Dr. Morrow's patient was a physician who got his chancre on the terminal phalanx of the left index finger.¹⁸

At one time it was a current belief that syphilis acquired extragenitally was particularly severe in its subsequent manifestations. All of the men, the subject of the present paper, were in good health at the time of their infection, and were from twenty-six to fifty years of age, and their syphilis, as it afterward developed, appeared in no way to differ from that caught genitally. The doctor who came to me from the Middle States caught his disease from a patient who went on to have a most malignant syphilis, yet the doctor's infection ran a rather mild course. The doctor attributed the patient's severe syphilis to bad habits and a bad constitution.¹⁹

If this paper will cause any one man reading it to become more careful of himself in the handling of those dangerous cases, and so lead him to escape an infection that he otherwise might have had, it will have fulfilled its purpose.

¹⁴ Prof. Bergh's brochure. Quoted by C. W. Allen in a letter from abroad to the editor of the *Journal of Cut. and Genito-Urinary Diseases*, 1888, p. 394. Fournier relates the case of a midwife who became infected in this way, and also cites a case reported by Wigglesworth, (*Archives of Dermatology*, 1879, p. 374) where a physician got a chancre of the tonsil through insufflation. *Les Chancres Extra-Genitaux*, par Alfred Fournier, p. 39.

¹⁵ *Syphilis Gravis in Medical Men*. By Dr. Brandis. *Vide supra*.

¹⁶ Some Unusual Modes of Infection with Syphilis. By R. W. Taylor. *Journal of Cutaneous and Genito-Urinary Diseases*, June, 1890, p. 201.

¹⁷ *Idem*.

¹⁸ Prince A. Morrow. *Journal of Cutaneous and Genito-Urinary Diseases*, 1898, p. 541.

¹⁹ Dr. Brandis in reviewing ten cases of syphilis in medical men caught extragenitally, says that the subjects were all in robust health, from thirty to fifty years of age, and their syphilis ran the usual course. (*Loc. cit.*)

SOME CASES OF DISEASED NAILS.

By GEORGE T. JACKSON, M.D., New York.

DISEASES of the nails form one of the dark continents in our knowledge; a territory still to be thoroughly explored. It is my object simply to put on record a dozen cases from my private case book in the hope that they may be of use to some one striving to enlighten our ignorance.

Case 1. Mrs. J. B., æt. sixty-four. U. S. Widow. The patient has been under severe nervous strain for a long time. She has just recovered from nervous prostration. She has paralysis agitans of the right arm. One year ago the nails of the left thumb and middle finger of the left hand became diseased; three months afterward the ring finger of the left hand became similarly affected, and in about eight months the index finger of the right hand.

The diseased nails are opaque, yellowish in color, separated from the nail bed, and striated longitudinally. The parts over the lunula preserve their gloss and color. There is a slight accumulation of scales under the nails. There is absolutely no sign of inflammation in the parts about the nails.

Under attention to her general health, the use of arsenic, the hypophosphites, and a "rest cure," in the course of two years the patient's condition greatly improved, and her nails were almost well. Then she contracted grip, became greatly depressed, and her nails became worse than before.

This was a case of atrophy of the nails apparently due to nervous influences.

Case 2. Mrs. G. G. H., æt. twenty-six. U. S. Married. The patient is in good general health. She is not gouty or rheumatic. She has been married two years and has an eight months' old baby. The parturition had no effect on the nail disease which antedated it by a year.

Three years ago her nails became diseased, all the nails becoming affected at about the same time. They are thin, brittle, discolored, and partly detached from their beds, with a good deal of heaping up of cells under them.

In this case there was no apparent cause for the disease excepting that she had her hands in water a great deal doing her housework.

Case 3. A. L. E., æt. twenty-seven. Single. The patient's

family history is good. He is not rheumatic nor gouty. His general health is good. He is not nervous. He has premature alopecia and a well marked seborrhœal eczema.

About eighteen months before I saw him all the finger nails became diseased excepting that of the little finger of the right hand. About six months afterward that, too, became involved. The toe nails are unaffected.

The nails are worm-eaten and thinned. They split when they reach the distal end of the finger. They appear as if a number of small holes had been made in them with a fine drill. Their color is gray. The nail of the right index finger is broken off half way up. No lunula is to be seen on any of the nails. There is a slight redness about the nails.

Case 4. F. G., æt. twenty five. German. Single. Three years ago the patient had syphilis. This appeared to have run a mild course. The nails of both thumbs, that of the middle finger of the left hand, and those of both big toes are of brown color about one-half way from distal ends. Under their free borders there is a heaping up of scales. The nails are not deformed and have not lost their luster.

Case 5. J. R. F., æt. fifty-five. U. S. Single. The patient is gouty. Five months before I saw him he said he had a sore on his penis that was not followed by any eruption. When seen he had a round ulceration on his lower lip, probably a mucous patch.

Three months after the sore appeared on the penis he noticed the disappearance of the lunulæ, and shortly after, the disfiguration of the nails.

All the finger nails of both hands excepting those of the little fingers have on them deep transverse ridges. The upper thirds of the diseased nails are pink, while the lower two-thirds are yellowish brown. There are no lunulæ. The whole ends of fingers are reddened and swollen.

It is possible that this case, as well as the preceding one, is due to syphilis.

Case 6. F. P., æt. fifty-one. U. S. Married. The patient has had nervous prostration. The disease began on the nails of the little fingers two months before he called on me. Now all the finger nails are affected. The toe nails are healthy.

The distal ends of the nails are detached from the nail bed. They are brown. They preserve their luster and are not striated. Some of them are broken off at the free ends. There is slight redness about the nails.

The nails became perfectly well after a few months' residence in California, where he went on account of his health.

Like Case 1, this apparently was a case of atrophy of the nails due to nervous disturbance, or to a lowering of the general nutrition on account of nervous prostration.

Case 7. Mrs. M. H., æt. twenty-seven. U. S. Married. The patient is a very nervous woman, who has had several miscarriages, and suffers from constant pain in her back. She has had eczema marginatum.

The disease of her nails began about three months before she consulted me. All the finger nails and both big toe nails are diseased. The nails are lusterless, longitudinally ridged, rough, and so thinned that they seem to consist of but a single layer of cells.

Two days before coming to me she developed alopecia areata.

Case 8. Mrs. H. F. W., æt. thirty-six. U. S. Married. Her nails have been diseased since she was fourteen years old.

The disease is said to have begun on one finger and to have spread gradually to all the finger nails, and to the nails of the big toes.

The nails are so thin and unattached to their beds that they can be turned back with slight force. They are detached for about two-thirds of their length from the distal ends. They tend to curve downward at their distal ends so as to hug the finger end closely. They have many white spots on them. No lunulæ are to be seen.

Case 9. Miss E. C. J., æt. twenty-nine. U. S. Nurse. There is a marked family history of rheumatism.

The patient has a marked seborrhœal dermatitis of the scalp and scratches her head a great deal. She also perspires freely, the palms and soles being always moist. She is in good general health, not nervous, and has not had her hands in irritating fluids.

The disease of the nails began two months ago, that of the thumb of the left hand being the first affected. Since then all the nails of the left hand, and those of the index and middle finger of the right hand have become involved.

The disease began at the matrix, the region of the lunulæ being first affected. The nails lose their luster, then they become rough, worm-eaten, and split. The distal halves of the nails are sound. (Figs. 1 and 2.)

Under a sulphur ointment for her scalp and nails, and arsenic by the mouth, the nails improved markedly in a month.

Case 10. H. H. C., æt. nineteen. Single. Post-office clerk. There is nothing of moment in the family history. The patient's

general health is good. His work is very confining, as he has long hours in the post-office. The disease of his nails began one year before I saw him, and affects all the nails of both fingers and toes. The nails break off so that instead of a nail there is upon the lower one half, or one-third, of the space usually occupied by the nail a thickened, hard, horny, uneven, dirty-looking nail bed. The rest of the nail is apparently normal. The lunula is visible on one thumb. (Fig. 4.)

On the toes the nails are in the same condition as on the fingers.

Under the administration of arsenic in doses up to one-fourth of a grain a day, the medication being suspended from time to time, and the wearing of rubber cots during the day, and the use of a five per cent. salicylic acid ointment during the night, the finger nails recovered entirely in seventeen months, and the toe nails were much better.

Case 11. P. V. C., æt. fifteen. Clerk. The patient's general health is good. He has a well marked seborrhœal dermatitis of the scalp, and he scratches his head a good deal to relieve the itching of his scalp.

The disease of his nails began one year before I saw him, on the middle finger of the right hand, and since then it has gradually spread so that all the nails but those of the left little finger, and right thumb and ring finger are involved.

The patient says that the first change noted in the nails is that the distal extremity becomes striated and loosened at the sides. By degrees they become loosened from their beds so that a sliver of wood can be slipped under them down almost to the matrix and the nail can be bent backwards. The nails preserve their lustre, but have a brown color for about three-fourths of their length from the distal end. The region of the matrix is apparently sound. There is no onychia, and no heaping up of cells under the nails. The sound nails have some white spots in them. (Fig. 3.)

Case 12. W., æt. nineteen. Clerk. The patient is in good general health excepting that he suffers a good deal from indigestion on account of defective teeth that prevent his masticating his food. He has always had defective teeth. He has but one upper incisor tooth, five molars, two canines, and some stumps of teeth. His eyesight is also very poor. He has a brother who also has defective teeth and eyesight. He has abundant hair on his scalp, and only a slight downy growth on his upper lip. His pubic and axillary hair is well grown. His mammary glands are developed equal to those of a thirteen or fourteen year old girl.

His nails have always been defective, excepting those of the left



FIG. 1.



FIG. 2.



FIG. 3.

FIG. 4.



FIG. 5.



middle and index fingers, and those became diseased about four years ago. The nails have lost their luster, are ridged from side to side, and at the distal ends are so thinned that there is but a single thin nail plate over the bed, the whole nail looking as if gouged out. (Fig. 5.)

After arsenic up to one-tenth of a grain a day, and keeping a twenty per cent ointment of salicylic acid applied at night for one month, the nail of one index finger was much improved, had regained its luster, and grown to the end of its bed.

The photographs illustrating this paper were taken by Dr. S. Dana Hubbard, to whom I am indebted.

ETHYL CHLORIDE IN THE TREATMENT OF ZOSTER.

By HOWARD MORROW, M.D., San Francisco.

FOR the many skin affections for which we are unable to give much relief, zoster occasionally is an excellent example. Ordinarily it is a very mild condition for which the physician can make the patient quite comfortable, but frequently zoster produces more discomfort and pain than can be tolerated by the patient, the pain necessitating blistering, morphine injections, etc. In the milder cases the vesicles should be protected from the friction of the clothing by covering them with dusting powder, such as starch and oxide of zinc, to which camphor or morphine may be added. Although ointments tend to produce rupture of the vesicles, a condition not to be desired, nevertheless oily applications such as zinc oxide, one part to three parts of carron oil, give a great deal of relief, particularly during the crusting stage. Menthol may be added to this when necessary. Internal remedies given with a view of aborting the eruption are of doubtful value. In the severer cases antipyrin in large doses and given regularly occasionally gives some relief. Mild galvanic currents give most benefit for the neuralgia that so frequently follows the eruption. For the agonizing pain which often accompanies the eruption subcutaneous injections of morphine given over the nerve act well but possess many disadvantages. Counter irritation has long been used to overcome the severe pains of zoster, and used in this way ethyl chloride acts excellently.

Patients who have not slept for days and are in constant pain, can be greatly relieved by this treatment. An area the size of a dollar is frozen at a point where the nerve emerges from the spinal column. Although this usually relieves the pain along the entire nerve, it is better to freeze areas where the pain is localized. In some cases this

treatment will relieve the pain for a day or more, whereas in others, only for a few hours. When this is the case there seems to be no objection to applying the ethyl chloride frequently. Ten patients have been treated by this method.

I will report briefly on the following:

J. P., aged sixty years, had zoster of the third and fourth spinal areas, one group of vesicles was located anteriorly and another posteriorly, and the eruption was of three days' duration. There was constant pain and insomnia from the beginning of the eruption, and the pain was localized to the two areas of vesicles. An area of skin between the posterior group of vesicles and the spinal column was frozen. That night the patient slept well, and this treatment greatly diminished the pain in the back, but only slightly decreased the pain in the anterior area. The following day both areas were frozen which relieved the pain and allowed the patient to continue with his work for the first time since the eruption appeared.

In November, 1903, a physician consulted me for pain accompanying intercostal zoster of ten days' duration. The patient had been unable to sleep during this time, and was unable to attend to his work. He had taken large doses of antipyrin and locally had used menthol, cocaine, lead and opium without benefit. Ethyl chloride was used to freeze an area the size of a dollar over the seventh nerve near the spine posterior to a large group of vesicles, where the pain was most severe. To the right of the sternum was another painful group, and this area was also frozen. That night the patient slept well, and the following day he attended his work with comparative comfort. With a recurrence of the pain these areas were again frozen. The patient carried a tube of ethyl chloride in his pocket for a week, and when the neuralgic pains recurred he immediately froze the painful areas. For several days he used this method, as often as four times in the twenty-four hours. Under this treatment the doctor slept well and attended to his work regularly.

EDITORIAL.

RINGWORM OF THE SCALP CURED BY THE X-RAY.

IN 1896, or four years after commencing his exhaustive researches upon the ringworm fungi, Sabouraud came to the conclusion that at that time no known treatment would cure ringworm of the scalp and announced his belief that no antiseptic treatment whatever would attain this end, "because even if the chemical nature of the antiseptics be varied, their physical power of penetration is scarcely altered. Whether in solid, liquid or gaseous form the same mechanical obstacle is encountered which no one of these agents is able to overcome. *The root of the hair is inaccessible to external antiseptics.*" He then abandoned all serious attempts at treatment with antiseptics and devoted three years of laboratory research with microbic toxins and the toxic depilating action of the salts of thallium, with the idea of temporarily suspending the function of the hair papilla. These methods were found impractical and the tedious process of causing follicular supuration by means of croton oil had to be continued.

At last a solution of the problem has been found in radiotherapy and to Sabouraud belongs the credit of having placed the method upon a practical basis. While a number of workers have contributed papers upon the subject, the inconstancy of results, the indefiniteness in methods, and the severity of accidents, such as severe dermatitis and even permanent alopecia, have caused the method to be looked upon with little favor. In the articles by Sabouraud and Noiré in *La Presse Médicale*, 1904, p. 825, and in the *Annales de Derm. et de Syph.*, 1904, p. 80, are given a complete description of the method as employed at the Ecole Lailler (Hopital St. Louis) and the statistics of the brilliant results which have been obtained. Aside from the minute directions concerning the method of using the static machine, the strength of current, the instruments of precision for regulating the vacuum in the focus tube, the shield and the iris diaphragm, etc., the most important aid to the practical working of the method is the *Radiometer* of Sabouraud and Noiré. This radiometer is a circular wafer of paper coated with an emulsion of platino-cyanide of barium in a colloid of amyl acetate, and has the property of changing color under the action of X-rays in proportion to the quantity of rays absorbed. By a comparison of an exposed wafer with a scale of colors it becomes easy to determine the exact amount of exposure necessary to cause a complete depilation without erythema or danger of permanent alopecia. The amount beyond which it has been found dangerous to go in one *séance* corresponds to 5 H of the Holzknecht scale.

To state in a few words the formula for treatment: "*To cure a patch of ringworm of the scalp by the X-ray, place the patch at a distance of 15 centimeters from the center of the focus tube and place at the same time a disk of platino-cyanide of barium paper 8 centimeters from the center of the tube. When this disk has taken the color corresponding to the tint "B" of Sabouraud's radiometer, the operation is terminated.*" In a patch so treated nothing is noted until the seventh day when a slight erythema, scarcely visible, occurs and disappears in four days, leaving a faint pigmentation. After the fifteenth day the hair falls out almost without effort. Cultures taken from these diseased hairs show that the fungus is not destroyed, consequently, to prevent reinfection, an ointment of oil of cade is rubbed into the scalp at night, the head is shampooed in the morning, and then a weak solution of tincture of iodine is rubbed over the entire scalp. After thirty days a careful search is made to see that no diseased hairs have escaped. Every fifteen days an examination is made until complete regrowth has taken place. The great economy of the treatment is the main feature to be emphasized for the benefit of public institutions where such cases are usually treated on the "penny wise and pound foolish" system. At the Ecole Lailler prior to 1903, the average time required for a cure was two years. About three hundred cases were hospitalized and about 110 were annually discharged cured.

At present, the cure requires three months and last year over 327 cures were effected. Estimating the cost of maintenance of a child at the school at fifty-six cents a day, the cost to the Assistance Publique has been reduced from four hundred dollars to fifty-six dollars per capita per annum. As one of the buildings containing 150 beds which had been used for these ringworm cases has been returned to the Assistance Publique, the saving in the budget, valuing a bed at two thousand dollars, amounts to about three hundred thousand dollars. Not only this but the provincial colonies for ringworms at Romorantin, Frévent and Vendôme, with places for 350 cases, are practically discontinued, as all such cases can now be treated as out-patients at a cost of ten cents per *séance*, or from ten cents to one dollar for each cure. In fact, with a careful examination of the entire school population and an enforced treatment, Sabouraud claims that the disease can be completely eradicated from Paris in a few years.

SOCIETY TRANSACTIONS.
NEW YORK DERMATOLOGICAL SOCIETY.

329th Regular Meeting, December 20th, 1904.

DR. GEORGE H. FOX, President.

A Case of Generalized Chronic Impetigo Contagiosa.

Dr. ALLEN presented a woman in whom the disease has existed for over two years. The lesions are about scalp, and especially about breasts and body; in fact, she has never been entirely free from them at any time. The scalp itches and each new outbreak is preceded by itching. The crucial test of this condition is, in Dr. Allen's opinion, an erythematous redness and rubbing off of the epidermis, without grouping of unbroken vesicles, and a striking and lasting whitening of the area or its outer ring by rubbing in peroxide of hydrogen. Dr. Allen said he saw the case in consultation with Dr. MacGuire last year and prescribed for it. He made the diagnosis then of impetigo contagiosa and expected her to get well in a short time under ammoniated mercury and other applications, but she did not remain well and this he attributed to lack of treatment of the whole body. The scalp had been neglected by the patient and this he considers sufficient reason for these continued recurrences; that it is the source of infection and that she continually infects herself by scratching. He has seen her now for only a few days; is treating her scalp and expects then to get rid of the lesions on her body. From the clinical features Dr. Allen excluded dermatitis herpetiformis, and in response to the question how often he saw impetigo contagiosa on the scalp, he said he considered that condition essentially a scalp disease and that it begins with pediculosis in the vast majority of cases.

Dr. FORDYCE thought it resembled more closely dermatitis herpetiformis than impetigo contagiosa, as the latter condition rarely occurred without involvement of face and did not last as long as this case had.

Dr. JOHNSTON was of the opinion that the lesions were a little more superficial than is commonly the case in dermatitis herpetiformis.

Dr. PIFFARD's diagnosis was dermatitis multiformis. He said by impetigo contagiosa he understood the disease first described under that name by Tilbury Fox. Dr. Allen had in mind another condition; this was manifestly not Tilbury Fox's disease. The latter, described in the *British Journal of Dermatology*, was not characterized by lesions on the scalp, but by a vesicle which dried into a straw-colored crust and was mentioned as being associated with or as a sequela to vaccination. Some years ago in Dr. Piffard's clinic at Bellevue Out-Door Poor a case turned up and he went through four or five of the tenement houses on the same block and collected quite a number. The lesions occurred on all parts of the body, but he does not recollect any on scalp; old and young were affected, the former getting it from the latter, and the children who were not big enough to go to school caught it from those who did go. Subsequently, Dr. Piffard wrote an extensive article in which he claimed to have discovered a parasite; this was confirmed some months later in Europe. Now, however, he was convinced that the

organism described was not a bacillus and that he could produce it in many other ways.

Dr. JOHNSTON inquired if Dr. Piffard's contention was correct, why almost all cases of impetigo contagiosa began around children's mouths and backs of hands and was carried from one to the other. He thought there was no use in looking for a primary lesion. Inoculation of pus cocci into the skin will produce an impetigo whether the particular point of entrance happens to be a burrow, a puncture by a pediculus or an herpetic vesicle.

Dr. JACKSON favored the diagnosis of dermatitis herpetiformis. He did not believe that it was impetigo contagiosa because it did not occur in the usual locations affected by that disease, and because it was not readily curable as that was.

Dr. SHERWELL had hardly ever seen a case of impetigo contagiosa where it was not on some part of the face around the chin and backs of hands, and would be inclined to call this a case of dermatitis herpetiformis.

Dr. KLOTZ would call it dermatitis herpetiformis rather than impetigo contagiosa.

Dr. WHITEHOUSE said its clinical resemblance to impetigo contagiosa was quite close, but he had never seen a case last four years. The itching and grouping, too, which he considered very distinctive in this case, would be sufficient in his mind to exclude it.

Dr. BRONSON did not regard it as impetigo contagiosa but as a case of dermatitis herpetiformis. He raised the question whether this was an impetigo contagiosa that was essentially a systemic disease. The affection as described by Dr. Tilbury Fox would certainly seem to be of such a character and closely allied to the acute exanthemata. The mention by him of prodromal symptoms would hardly mean anything else. Certainly the larger proportion of cases of impetigo encountered were purely local affections due to and spread by local infection, and yet their lesions could not in any way be distinguished from those described by Tilbury Fox. Yet it seemed to the speaker that it was not at all impossible that an impetigo might be the result of blood sepsis, more particularly in some of the severer cases that were apt to be characterized by large bullæ—rather than pustules, or in which the serous effusion predominated over the purulent, and also by an uncommonly wide distribution over the body. It has been stated that while in common impetigo only staphylococci were found, in the true impetigo contagiosa there were streptococci. He thought, however, that this observation had not been confirmed.

Dr. MEWBORN said that Sabouraud claimed that the primitive vesicle in impetigo contagiosa of Tilbury Fox was caused by streptococci and later the serum exuded became infected with staphylococci.

Dr. ALLEN asked whether the gentlemen present were familiar with impetigo contagiosa in men, especially those who go to barber shops to be shaved, the lesions coming out promptly on the face in a characteristic way, with no frank vesicles, but with the epidermis rubbing off in round patches from a pin's head to a quarter of a dollar size and running together forming plaques. The society agreed that such cases were impetigo contagiosa. Dr. Allen added that it was in no wise confined to men; that a lady had been sent to him by a general practitioner during the week with the request to examine her carefully for an initial lesion as he regarded the case as surely specific, but could not find the point of infection. Dr. Allen said it was a case of impetigo contagiosa, of rather severe nature and of three weeks' duration, but he was sure that in less time than that she would be wholly free from it, and he was convinced that if he did not find pediculosis on her scalp, he would find it in some member of her family. Dr. Piffard and Dr. Fox had misunderstood his meaning when he made the statement that impetigo contagiosa has very much to do with the scalp—not that the lesions are so numerous and so marked in the latter region, but he meant to convey that the

eruption had largely to do with the scalp as the abode of pediculi. In the clinic at the Good Samaritan he had seen thousands of cases of pediculosis; he granted that pediculosis occurred without impetigo contagiosa, but he was not prepared to grant that impetigo contagiosa occurred unless it could be traced to pediculosis or vaccination, some similar process or a preceding case. He had seen hundreds follow vaccination. The only other chronic impetigo he had seen in his own practice he had presented to the Society and this had started from a vaccination sore on the arm.

A Case of Multiple Idiopathic Pigment Sarcoma. Presented by Dr. SHERWELL.

Patient is an Italian, born in Naples; aged fifty-two; has been in this country fifteen years. Came to Dr. Sherwell's clinic on December 15th. Tumor on foot appeared twenty years ago; present condition began ten years ago and has been gradually increasing; is worse in winter. Dr. Sherwell thought it resembled three things:

1. Pellagra, suggested by hands and feet, œdema and general tumefaction and discoloration.
2. Sarcoma-pedunculated and sessile on various parts of body, on elbow region, etc.
3. Angioma circumscriptum.

Dr. BRONSON said it was more like Kaposi's idiopathic pigmentary sarcoma than anything else.

Dr. PIFFARD agreed with the diagnosis of sarcomatosis cutis.

Dr. ALLEN agreed that it was a case of Kaposi's sarcomatosis cutis.

Dr. WHITEHOUSE said it was a remarkable and interesting case and he believed it an example of Kaposi's multiple idiopathic pigmented sarcoma.

Dr. FORDYCE said it was a case of the Kaposi type of the so-called idiopathic multiple pigmented sarcoma and differed from the ordinary type in being pedunculated. Some cases of the affection were slightly malignant, as instances are on record where the disease had lasted twenty years or longer.

Dr. JOHNSTON said the presence of pedunculation illustrated the fact that the Kaposi type is only one of many varieties of sarcomatosis cutis. The ordinary localized non-hæmorrhagic tumor has a marked tendency to overgrowth with peduncle formation in certain parts, regression in others.

Dr. JACKSON thought the case to be without doubt one of multiple idiopathic pigment sarcoma. Many of these cases do not affect the general condition of the patient. The one he reported some years ago had had the disease for many years, and when last heard from he said that he had greatly improved under some remedy given to him by an "herb doctor."

Dr. SHERWELL said the case was of peculiar interest to him. When he first saw the man's hands it looked so like a case of pellagra that he instantly jumped at that diagnosis; when he saw the peculiar condition of the arms, thought angioma serpiginosum was mixed with it; but the pedunculated tumors on the foot, lower leg and knee changed his diagnosis to that of sarcoma. He gave him arsenic and proposed treating him with that drug internally. Dr. Sherwell called to the mind of the Society a case of pedunculated sarcomatosis which he had cured with arsenic, apparently, at least, and had remained free for some years.

A Case for Diagnosis. Presented by Dr. MEWBORN.

The patient was a boy eight years old; born in the United States; father Danish, mother Polish. Mother had smallpox when four years old; has four children, aged ten, eight, six and four years respectively.

Father has kidney trouble. There is nothing in the boy's previous history, except that he is anæmic and poorly nourished. He had pneumonia four years ago and measles two years ago. Following the measles scaly red patches accompanied by itching developed on the body. The eruption disappeared in the spring and he was free until last October, when it returned. The lesions are wheal-like (urticarial) and desquamating, reddened patches on which in places are purulent crusts.

Dr. SHERWELL said it was a condition of imperfect nourishment—scrofulous if that term would be accepted. Nutrition should be improved and slight anti-parasitic and soothing applications made.

Dr. WHITEHOUSE considered it a complex case and one which he did not see very infrequently in children of this condition of health. The boy has an irritable skin on which almost anything could be produced—he has urticarial lesions and eczema patches and upon these a secondary infection. Dr. Whitehouse regarded it as an impetigenous eczema and urticaria and suggested mild parasitocides and soothing astringents, but principally general hygienic treatment with good feeding and building-up.

Dr. ALLEN called it pyoderma and agreed that internal medication would have to be combined with external to effect a cure.

Dr. BRONSON agreed with Dr. Whitehouse that the morbid condition of this patient's skin was of a complex character. Evidently there was maldevelopment and bad nutrition. In addition to that there was some inflammatory malady that seemed a little peculiar. It showed signs of some purulent infection, but the speaker did not regard that as the essential factor in the disease. He believed that the general constitutional condition that gave rise to dermatitis herpetiformis was the essential cause of the present affection. It was not a typical case of dermatitis herpetiformis because modified by a previous peculiar constitution of the skin and was also probably complicated by coccigenic infection. Dermatitis herpetiformis was not a very clearly defined type of skin disease. Its manifestations were subject to great variety, and it rather implied a peculiar neuropathic condition than any special form of dermatosis. He thought all that was essential in that class of affections denominated dermatitis herpetiformis was evident in this case.

Dr. JOHNSTON subscribed completely to what Dr. Bronson said and called attention to the secondary thickening due to scratching. He thought that the bullæ arising, not in the sound skin, but in the middle of a patch, were due to the fact that some particular portion of the superficial plexus of vessels was a little more affected than the rest and the serous exudate at that point was in consequence a little greater. Pustulation was probably secondary and accidental.

Dr. JACKSON would not call the disease dermatitis herpetiformis. He thought that the patient was a badly nourished boy with an eczematous skin, and that on account of scratching to relieve its itching he had infected himself with the ordinary pus organisms.

Dr. KLOTZ said that all symptoms present and particularly the severe itching and intermittent attacks would justify the diagnosis of dermatitis herpetiformis.

Dr. MEWBORN said that the general enlargement of the glands everywhere was striking and that perhaps the defense of the boy's skin was everywhere impaired owing to a defective lymphatic condition. His skin is particularly susceptible to any external infection. While Dr. Mewborn thought there was an urticarial element, he did not consider it a clear case of dermatitis herpetiformis nor a true eczema, but more likely a dermatitis due to external infections in a nervous and poorly nourished boy.

A Case of Folliculitis.

Dr. SHERWELL brought this man before the society for therapeutic suggestions.

Mr. S., United States, aged fifty, single. The eruption, sycotic in character, began about six months ago and has been increasing; is situated over gluteal region and inner surfaces of thighs; induration over ischial tuberosities very extensive. Dr. Sherwell applied parasitocides with evident improvement. The trouble is exceedingly refractory, is shown on account of obstinate character and for therapeutic suggestion.

Dr. PIFFARD said it was essentially a perifolliculitis with intrafollicular infiltration; on the face would be called sycosis. He had seen so many cases of similar lesions during the past nine months as to suggest an epidemic.

Dr. JACKSON regarded it as an infection with staphylococci. He was unable to determine whether it was follicular or not.

Dr. MEWBORN considered it a folliculitis of staphylococcic origin.

Dr. FORDYCE regarded it as a staphylococcic infection of the skin and added that it was now difficult to say whether it was a primary infection of the follicles or the non-follicular part of the skin. He had seen a number of similar cases on the buttocks, some of which were not pustular but papular and urticarial in type.

Dr. ALLEN said he occasionally saw a similar condition but more frequently on the anterior surfaces of the thighs; he had been able sometimes to trace it to the wearing of new underclothing put on without being laundered. He was convinced that there was something in the manufacture of the clothing, for in the men who work on such articles he had seen a folliculitis set up by the oil dropping on their clothes from the machines. In underclothing that had been dyed he suspected something in the dye. His ideal treatment was disinfection with peroxide of hydrogen with a swab followed by 3 per cent. solution of methylene blue; this was allowed to dry and then the high frequency current was applied and a top dressing of collodion. He never used ointments; considered Burrow's solution good, but advised precaution to have it properly prepared and filtered.

Dr. BRONSON said it was essentially a follicular infection of purulent character; it was not an eczema and came near to Bockhardt's impetigo. Treatment should include disinfectants and soothing or healing applications. He would suggest a solution of potassium permanganate (ten grains to the ounce), the pustules having first been opened and emptied, followed by Lassar's paste with 3 per cent. salicylic acid added.

Dr. KLOTZ said that there was present a folliculitis due to infection with some pyogenic microbes. He again referred to a case of general folliculitis including the face, which he had mentioned at a previous meeting. The patient was treated in the German Hospital not less than six or eight years ago and got well, but he was even now obliged to use continually some treatment unless the pustules would start again, particularly in the inguinal and pubic regions.

Dr. WHITEHOUSE said two or three years ago he presented to the Society an identical case of folliculitis existing nine years. He believes there are cases of local infection about the hair follicles as Dr. Allen described, but there are also cases which have other causes. In his case there was no local infection from oil or underclothing; he used red oxide and sulphur ointment, which would remove the eruption promptly, but the man ceased to have the attacks only after taking subgallate of bismuth, ichthyol, bismuth and naphthalin and other intestinal antiseptics, and he thought that in Dr. Sherwell's case there was a somewhat similar cause.

Dr. PIFFARD said, *apropos* of intestinal disinfectants, he did not know that he had ever given a drug with the intent of its acting as an intestinal disinfectant,

as he did not believe it would do so. He was of the opinion that the right kind of food would bring about proper conditions and referred to Metchnikoff's "Nature of Man" for corroboration.

Dr. KLOTZ said a great deal of re-infection is always taking place from the underclothing. To prevent this he found the wearing of bathing tights very useful, which could be frequently changed. He was in favor of wet antiseptic applications followed by painting with ichthyol solution or similar substance to form a protecting cover.

Dr. SHERWELL said the man was doing well under treatment and he was glad to hear what Dr. Whitehouse had to say about constitutional conditions as cause. He had placed him on a diet and drugs calculated to restore the tone of his *primæ viæ*. His urine, which was a little too acid, was corrected. He has been given all the milder forms of tar, a little oleate of mercury and oil of cade. A mild proctitic condition which was present has disappeared. Dr. Sherwell is in favor of the following lotion now: A fairly strong solution of resorcin, salicylic and boric acids.

A Case of Leprosy.

Dr. BRONSON presented a case from the City Hospital of leprosy in a Chinaman, who, on account of certain peculiar lesions, had been originally admitted to a venereal ward as a case of syphilis. The opinion of the society was asked as to whether it was leprosy alone or leprosy complicated with syphilis. Because of the patient's inability to speak English, little or nothing of the history could be obtained. The special features of the case consisted of extensive pigmented areas with mostly leucodermic centers and more or less rough and thickened surfaces over trunk and extremities. No very distinct nodules or tubercles were at the time present, though the brows were thickened and puckered as though from a receding infiltration. The nares were also enlarged and thickened. On the cheeks, scalp and extremities were a number of infiltrated patches showing corymbiform ulcerated lesions that strongly suggested syphilis. There was a peculiar condition of the penis. The entire member was much thickened and indurated, the thickening or infiltration being rather uniformly distributed. On the glans, to one side of the frenum, was a sore about one-half an inch in diameter, red and raw but not secreting much. The foreskin was so infiltrated that the lesion could only be displayed with some difficulty; but there was nothing like a circumscribed sclerosis. There was very decided enlargement at the elbow of the left ulnar nerve. Nowhere was any noticeable anæsthesia.

Dr. PIFFARD believed it to be a case of leprosy with probably a chancroid.

Dr. FORDYCE said the man undoubtedly had leprosy, but it was a question whether the lesion on the temple was a syphilide or not. The lesion on the penis, in his opinion, was probably a broken-down leprosy nodule.

Dr. WHITEHOUSE remarked that he had seen only one case of leprosy with syphilis added. In that the lesions were similar to those on the temple in this man. While leprosy nodules break down, he did not think that they formed crescentic patches as in this case. What the lesion on the penis was he thought it difficult to say.

Dr. ALLEN made a diagnosis of leprosy with the exception of the lesions on the

temple, which were covered with suppurating superficial crusts. He thought these might be due to an infection from scratching, they did not appear to him to be specific.

Dr. MEWBORN thought it was leprosy and did not see any particular signs of syphilis.

Dr. BRONSON said he had been inclined to think there was a combination of both lepra and syphilis. It was his impression that the man had already been receiving injections of mercury, and it was his intention to pursue the antisyphilitic treatment for a while longer. He did not regard the lesion on the penis as chancrous, although the thickening and infiltration of the organ might be syphilitic.

A. D. MEWBORN, *Secretary*.

NEW YORK DERMATOLOGICAL SOCIETY.

330th Regular Meeting, January 24th, 1905.

Dr. GEORGE HENRY FOX, President.

Relapsing Flat Carcinoma. Presented by Dr. PIFFARD.

This patient was shown before the Society two months ago (*JOURNAL OF CUTANEOUS DISEASES*, 1905, p. 120) and is again presented to show the marked benefit from treatment by the Piffard rays. The right side has been exposed to four treatments and the left to three. The scars now present are smooth and apparently perfectly well.

Dr. ALLEN considered that a relapse in these cases should be watched for and guarded against by continuing to use the high frequency spark.

Initial Lesion of the Eyelid. Presented by Dr. MEWBORN.

The patient, a young woman twenty-one years old, was married six months ago. About twelve weeks ago a swelling appeared on the margin of the left eyelid near the center which was taken for a sty, and a few days later the lid was touched with a copper sulphate stick and a nitrate of silver stick at a dispensary. November 15th, or about four weeks after she was treated at the dispensary, she came under the care of Dr. A. E. Davis, to whom I am indebted for the privilege of showing the case. At this time the lid was enormously swollen and covered with a black crust. The ocular conjunctiva was œdematous, the preauricular, cervical and submaxillary glands were enlarged. The secondary roseola did not appear until December 15th, or four weeks after Dr. Davis' examination. At present there is a dull red, crescentic papule at the center of the left lower lid with some loss of tissue from the sclerosis and entire absence of lashes. Two shot-like preauricular glands, enlarged cervical and submaxillary glands are present. The tonsils are both very much enlarged and on the right side an elevated patch encroaches on the soft palate. The interest of the case arises from the mode of infection which seems quite possibly to have been from the stick of copper or silver nitrate which was

used at the dispensary to cauterize the lid. And here I wish to insist upon the importance of abolishing from dispensaries all copper sticks or nitrate of silver sticks and to use strong solutions on cotton swabs which can be thrown away. The alum stick has been abolished from the barber shop and these dirty methods should be abolished from the clinic.

Dr. ALLEN had seen a number of cases of chancre occurring upon the upper and lower lid, a number of these cases he had already published.

Dr. FORDYCE had seen a number of cases of chancre of the eyelid. Quite recently one at the City Hospital in which the infection could not be traced. About four years ago he had seen a chancre at the inner canthus.

Case of Psoriasis with Unusual Distribution. Presented by Dr. ROBINSON.

Male, aged eighteen years, student at college. Parents healthy, with no history of psoriasis. A sister has, according to the description given, a seborrhœal eczema of axillæ and some other regions. Patient states that one year ago scales formed on the scalp and in about two months the scaling extended to the forehead and since that time has very slowly extended and at present reaches about one and one-half inches beyond the hair on forehead and somewhat beyond the hair on the rest of the scalp. The appearance of the eruption is that of an ordinary psoriasis of this region with perhaps a little more greasy condition of the part than is usually present. A small patch looking like a seborrhœal eczema is present on the left side of the nose. He states that at first there were spots upon the soles of the feet but at present the rest of the cutaneous surface is free except the hands.

On the back of the right hand a few lesions like ordinary lesions of psoriasis guttata are present. The palm is completely occupied by variously sized lesions between which is normal skin. Upon the fingers the lesions are small to large pea-sized, sharply limited, elevated, firm, reddish peripheral part and central part covered with firm closely connected epithelial cells. Only a few lesions are present on each finger. On the palm the lesions have formed large patches between which is normal skin. A few fissures are present but nowhere are there signs of a catarrhal dermatitis—of an eczematous process. The lesions as they extend at the periphery maintain the original objective characters. Lesions on left hand similar to those on the right in character but on the palm are more isolated and somewhat fewer in number. The lesions on the hands appeared in August, 1904, soon disappeared and reappeared at the end of December.

The tongue is very fissured and the papillæ on the whole upper surface very prominent, and the apex of nearly all in the middle of the right half shows a whitish cap. On the margin of the anterior half of the tongue there are several lesions showing elevation, sharp limitation, spreading at the periphery and whitish covering of epithelial cells and

absence of ulceration. The very slow extension excludes an ordinary desquamative process, the peripheral extension with clearing at center, leukoplakia of the tongue and the objective characters are not those of syphilis. The question is: Is the process in the mouth that of psoriasis?

I have taken a good photograph of the hand, and excised a piece of a tongue lesion, and will report the case when it has been properly studied.

Dr. LUSTGARTEN said that it had been his observation that in these atypical cases of psoriasis the characteristics seemed reversed as to the parts of the body affected. Hence it was quite not to be expected not to find the lesions at the usual sites. In these cases the contrasts in the appearance of the individual lesions were more frequent. In the unusual localization mixed typical and atypical lesions were found. In his experience the relapses which occurred after the use of X-rays were more severe and obstinate in resisting treatment.

Dr. JACKSON considered the case one of psoriasis of the scalp and palms..

Dr. FORDYCE thought the most interesting feature was the involvement of the mucous membranes. Psoriasis of the mucous membranes was very rare and he thought a biopsy should be made to see if it was a true psoriasis. Last spring he had seen a case in which a lesion of psoriasis on the upper lip had invaded the mucous membrane of the lip.

Dr. DADE pronounced the case psoriasis.

Dr. MEWBORN said the lesions on the tongue looked very much like "wandering rash" or exfoliatio areata linguæ. The tongue was a congenitally fissured and furrowed tongue and in these cases wandering rash was very common and persistent. He would not make a positive diagnosis of psoriasis.

Dr. WHITEHOUSE thought the case was quite characteristic of psoriasis of the palms, resembling in every particular a case he had seen, which was reported by Elliott in Morrow's "System of Dermatology." He agreed with Dr. Fordyce in considering the tongue lesions as very unusual. In this case the lesions under the tongue were apparently due to a superficial ulceration and were probably independent of the psoriasis.

Dr. SHERWELL would prefer to call this case a pseudo psoriasis, could not rid his mind of the impression that in this and similar cases there was a touch of the tar brush—an hereditary specific taint. The lesions were not so scaly as in a true psoriasis and in many ways did not resemble them. In his opinion there was undoubtedly a constitutional dyscrasia or diathesis, which was confirmed by lesions in and around lips, tongue and mouth. He recalled only two cases of seeming true psoriasis of the palms—those of Elliot and Taylor.

Dr. ALLEN said that all lesions of the palms in psoriatics are not necessarily psoriasis. He was at present treating a young lady, who has psoriasis of the entire body, for a keratosis of the palms caused by taking arsenic years ago. His case was much improved by the use of X-rays. His experience did not agree with Dr. Lustgarten's as to prompt recurrence after disappearing under the ray. In one case where the leg lesions had been particularly thickened and obstinate one leg under X-ray had remained smooth and healthy while the other under chryso-robin had not.

Dr. MEWBORN said that in one case, his experience agreed with that of Dr. Lustgarten's. This case, which was shown before the society at the December, 1903, meeting (*JOURNAL OF CUTANEOUS DISEASES*, 1904, p. 83), was apparently entirely cured from the use of radiotherapy, but in two weeks the eruption had returned and was more extensively distributed than at any former attack and was more obstinate in resisting treatment.

Dr. ROBINSON, closing discussion, thought the anatomical construction of the skin in different parts of the body should be taken into consideration to explain

the differences in type or the lesions in the case. On the scalp and on the nose, the lesions, if the only ones present, would possibly be taken for a seborrhoic eczema. The lesions on the palms, where the anatomical structure was so different, were quite different in naked eye appearances. If due to syphilis or to some hereditary protoplasmic constitution even then the anatomical peculiarities of the part might determine the character of the lesion or the immunity of certain parts to lesions. The lesions on the back of the hand he regarded as typical of body lesions of psoriasis. He thought the lesions of the mouth were not psoriatic, but had not as yet made a careful enough examination to form a conclusion.

Chronic Eczema with Peculiar Bluish Discoloration of the Face.

Presented by Dr. WHITEHOUSE.

Nathan L., age forty-three; furniture-mover by occupation. Eruption began eight years ago as an infiltrated thickly crusted patch over the back of the neck and occipital region. About the same time an eczematous eruption appeared in the bends of the elbows. It gradually spread all through the scalp over the face and upper part of the chest, and from the elbows to the forearms and backs of the hands. The eruption of the neck, face and chest has every appearance of being a weeping infiltrated eczema, having in some localities, as on the sides of the cheeks, a very sharp definition with an infiltrated raised border. A disseminated papular eruption with lichenification exists at present on the forearms and backs of the hands.

Last summer the eruption disappeared altogether but relapsed in the fall. He is very well in every other respect, bowels regular, appetite good, no headache, no rheumatism.

He has employed a great variety of local remedies and has taken some arsenic but not a great deal. The eruption on the face presents a deep bluish appearance, which color is present in a mild degree in the eruption on the chest and arms. The patient states that some days this color almost disappears.

The physician who referred the case to me saw him first on December 4th, and prescribed a 6 per cent. ointment of resorcin with $2\frac{1}{2}$ per cent. of ammoniated mercury. The eruption improved under its use but subsequently became irritated, and ten days later Lassar's salicylic acid paste was used. For nearly a month he has used nothing but Lassar's paste and calamine and zinc lotion and has taken only alkalies internally.

Dr. LUSTGARTEN did not regard the bluish discoloration as likely to have been caused by arsenic. He thought it was an example of "nervrodermite." It was quite possible that it might be the early stages of granuloma fungoides.

Dr. DADE regarded the case as being very probably the premycotic stage of mycosis fungoides. The long duration of the trouble, the infiltration of the skin, the intense itching and the resistance to treatment pointed very strongly in favor of such a diagnosis. In presence of an apparent eczema so very rebellious to treatment this diagnosis he thought should always suggest itself.

Dr. ROBINSON did not consider the case as presenting any signs of mycosis fungoides. He considered it an eczema.

Dr. SHERWELL said that the peculiar color depth of tissue change and succulence of the tissues as well as the intense itching did point somewhat strongly to the diagnosis of mycosis fungoides, but that he was willing to accept the diagnosis of eczema, as it had been so competently and carefully observed.

Dr. Fox thought the thickening of the tissues, the dry scaling, pointed to a diagnosis of eczema and that the discoloration was possibly due to the administration of arsenic years ago. He had never seen arsenic pigmentation disappear and return as reported in this case.

Dr. WHITEHOUSE, in closing, considered that the symptoms were undoubtedly due to an eczematous process. The bluish discoloration, which was much more marked in the day time, might have been produced by oxidizing or reducing agents used externally. He had seen such discoloration produced by the combination of resorcin and ammoniated mercury particularly when the former has been rubbed up with alcohol before incorporating it in an ointment. He had known this ointment thus prepared to produce a discoloration of the nails of a bluish color, which would last a long time. He agreed with Dr. Fox that the discoloration from arsenic was more diffuse and lasting.

Sarcomatosis Cutis. Presented by Dr. SHERWELL.

This case was shown previously (last meeting) and he now wished to show the benefit derived from a month's treatment, with ascending doses of arsenic, and intermissions thereof.

Sarcoma Pigmentosum Idiopathicum. (Kaposi.). Presented by Dr. LUSTGARTEN.

The patient, S. F., is fifty years old, married, and is the father of four living children. He was born in Russia and immigrated to this country in 1894. His occupation is shoemaker and he has always enjoyed good health until seven years ago, when he noted the successive appearance of small, reddish, pea-sized, slightly elevated, painless nodules on the dorsal as well as the plantar surfaces of both feet. There was no itching or subjective symptom. Until two years ago no change took place, when all of a sudden, following a long exposure to severe cold weather, both feet became swollen, much darker in color, the nodules enlarged irregularly, became variously confluent, and around the toes ulcerated. The general health was not affected. Glands not swollen and the condition has improved greatly under the use of X-rays and atoxyl injections.

Dr. LUSTGARTEN, in the remarks upon the case, said that the effect of X-rays had been quite pronounced in the relief of pain in the small joints of the foot. Previous to its use he had been almost unable to walk. In the parts treated by the X-ray atrophic changes had been noted. No change in other lesions from arsenic internally.

A Case for Diagnosis. Presented by Dr. DADE.

The patient, a man twenty-eight years of age, presents along the border of the hairy scalp and scattered throughout the scalp around the hair follicles an eruption that started sixteen months back. There are pits over both cheeks, the seats of former lesions. There is atrophy of the

scalp and loss of hair where former lesions have existed. There are present lesions showing crater-like depressions and active pustules; owing to treatment with sulphur ointment most of the deeply attached crusts have been removed, leaving only pigmentation and pitting, and in the scalp loss of hair. Lesions have been entirely confined to cheeks, forehead and scalp. While considering the case one of acne varioliformis it is presented for diagnosis. Delimitate any question of syphilis.

Dr. FORDYCE was inclined at the first glance to make a diagnosis of acne varioliformis, but upon a closer examination of the lesions he felt that it might be a case of lupus follicularis, as suggested by Dr. Lustgarten. The localization along the margin of the hair was suggestive of acne varioliformis. A biopsy would clear up all doubts.

Dr. JACKSON favored the diagnosis of acne varioliformis, although the lesions were rather small for that disease. He thought that it was not syphilis.

Dr. LUSTGARTEN said that localization, the funnel-like pits, the perifollicular involvement, and the remnants of an infiltration of a lupoid character all stamped it as a case of lupus follicularis. In places it resembles cases which erroneously have been described as colloid milium. There were one or two lesions on the forehead in which he thought a microscopic examination would reveal lupic tissue.

Dr. LUSTGARTEN, replied that lupus follicularis did not develop in the very young. The virulence differed with the soil, but there was a tendency to heal. Its evolution was markedly more rapid than in other forms of tubercle infection. He suggested that one of these nodules be excised and inoculated into a rabbit or guinea-pig.

Dr. FOX thought that in this case the iodism masked the symptoms. He thought that after the iodide eruption disappeared the case could be better studied.

Dr. DADE said he was glad to note that no suggestion of syphilis had been made. As regards the possibility of it being follicular lupus, a disease he was entirely unfamiliar with, he thought that if these lesions did resemble follicular lupus, which has been considered, though erroneously, as being identical with colloid milium then the diagnosis of lupus, he thought, must fall, as certainly there was not the faintest resemblance in any of the features of the case presented to those of colloid milium.

Lupus Vulgaris of the Nose, with Perforation of the Septum and Involvement of the Mucous Membrane of the Palate and Lips. Presented by Dr. MEWBORN.

The patient is a native American of Italian parentage and is eighteen years old. He was referred to me by Dr. W. E. Jenner, of this city, for diagnosis. The patient's father is living and apparently well. His mother died of tuberculosis about one year after his birth. He has a brother four years, and a sister seven years older, in perfect health. No definite history can be obtained of the eruptive diseases of childhood, but he has always been delicate and subject to catarrhal affections of the nose and eyes. Eight or nine years ago he suffered from a swollen and crusted condition of the nostrils which was accompanied by enlarged and suppurative glands of the neck. About five years ago the septum of his nose became perforated, leaving an opening about one-half an inch in diameter with a slender contracted bridle at the external orifice. Four

years ago the right ala of the nose and lip became swollen, red and covered with crusts which left ulcers and scars. Two and a half years ago patches appeared on the roof of the mouth. He has been treated in various clinics with mercury and iodides for hereditary syphilis without benefit.

Status praesens. The patient is undersized, poorly nourished and mentally deficient. His chest is rachitic with enlargement of costo-cartilage junction. There are no signs of tubercle of lungs. Enlarged cervical glands and cicatrices are present in the neck. The right wing of the nose is nearly destroyed by an ulceration which is bordered by a nodular margin, while the bottom of the ulceration presents a granular or papillomatous surface. This appearance is more marked in a patch at the tip of the nose.

The septum, consisting of a slender cord, bounds the oval perforation which extends back to the vomer. The posterior boundary of the perforation is so thickened by perichondritis as to entirely occlude the left nostril and almost block up the right nasal opening. This compels the patient to breathe through the mouth, which seems to aggravate the lesions existing at the left commissure extending upon the upper lip and buccal surface. The gums on the labial surface above are very red and spongy with an ulceration above the central incisors. The lesions on the hard palate are best shown in the plaster cast of the upper jaw, which is here presented. As you see, there is a destruction of the mucous membrane down to the bone in a semicircular area extending from the first bicuspid on the left to the first molar on the right. The bottom of the ulceration has the same papillomatous appearance. There is at present an ulceration of the left cornea and some opacities in the right cornea.

In the differential diagnosis, hereditary syphilis seems to be out of question from the slowness of progress in the disease. Blastomycosis has been thought of and fresh specimens of pus, smears stained by polychrome methylene blue and by Wright's stain, and cultures were examined without success. Sections show lupic nodules and giant cells. Tubercle bacilli not found.

Dr. FORDYCE considered the case very similar to one at the City Hospital in the service of Dr. Bronson. In that case there was a similar ulceration of the nose destroying the septum and floor of the nose. A section of tissue had shown tubercular structure, but no bacilli.

Lepra Tuberosa et Anæsthetica. Presented by Dr. LUSTGARTEN.

The patient, T. M., is a woman fifty years old, born in Kurland, Russia, a leprosy district. Married thirty-five years; had six children of whom four are living and well. Patient immigrated to this country in 1894 and declares that the first manifestation of her trouble made its appearance soon after her arrival.

Dr. Lustgarten added that the disease had steadily grown worse. None of her family had the disease. Bichloride injections had been given with a temporary benefit. Chaulmoogra oil had produced no effect.

Dr. Fox alluded to the astonishing tolerance for chaulmoogra oil shown by these patients, when the oil was administered in Phillips milk of magnesia. He gave it in the proportion of one to two.

Ol. Chaulmoogra.....	20.
Lac. Magnesiae.....	40.
Ol. Gaultneria	q. s.

Xanthoma Diabeticum Tuberosum. Presented by Dr. LUSTGARTEN.

Mrs. E. D. is forty-five years old; married for twenty-eight years. Had seven miscarriages and gave birth to five children of whom four died of infantile diseases. No marks of any kind were noticed on the children. Husband is living and both he and she deny ever having any cutaneous affections. At the age of fourteen she suffered from an ulceration of the cornea, resulting in a leukoma. The first symptoms of her present ailment date back to six or seven years ago. The various sized, yellowish-white, hard, painful tumors break out in attacks when the urine shows a greater amount of sugar. The percentage of sugar in the urine at times amounts to 3 per cent. to 5 per cent. The favorite localizations are the hands, knuckles volar, elbow and knee surfaces, where a tendency to bead string line formation is apparent; further eruptions were noticed on the neck and face, especially the chin, on the lips—even mucous membranes of the mouth. An erythematous state precedes the formation of the nodules, which are sensitive to pressure and owing to the involvement of the tendons and fascia cause contractions and interference with free motion. The histological nature of the excised nodule, as reported before, corresponds to the findings in xanthoma. Patient has been on an antidiabetic treatment receiving pilocarpine, arsenic and sodium iodide. The greatest though temporary benefit has been from the iodide and the X-ray.

Dr. ROBINSON considered the most interesting feature of the case was the origin of the bands at the elbows. He thought the etiology of these keloid-like formations was very uncertain.

Dr. SHERWELL recognized the case as one which he had treated about seven years ago and the picture of the case taken by Dr. Fox with a full history, which had been published in the *JOURNAL OF CUTANEOUS DISEASES* and was recently reproduced in the *New Sydenham Society Journal*. At that time, under a careful dieting on animal food with exclusion of the carbohydrates and administration of arsenic she had greatly and very rapidly improved, almost to complete cure of the lesion. The inflamed bluish lilac areolæ around the tubercules, and the size and prominence of them, which had prevented her from lying down with comfort, marvelously disappeared. As to the moniliform contractions, he was inclined to regard these as nothing special, but simply due to the connective tissue changes following the development of a line of papules, which, in contracting, had produced these bands favored by their position in flexor side of elbow region, which naturally was for the major portion of day and night in relaxed position, thus favoring contraction.

Dr. WHITEHOUSE regarded the moniliform bands as quite a unique feature of the case. He did not recall a report of a similar case in the literature. Wounds and other injuries showed no tendency to the formation of hypertrophied scars in this subject, and it was therefore evident the striæ were a part of the xanthoma

process, for it is apparent that the bands developed in the site of lines of xanthoma nodules.

Dr. Fox agreed with the opinion that these bands in groups were preceded by papules in bead-like arrangement. The only moniliform lesions ever shown before the Society was a case of lichen ruber with moniliform lesions at the elbow which he had shown a number of years ago. This case was almost the counterpart of the case pictured in the Kaposi plate, only in Kaposi's case the lesions had developed in a case of lichen planus. Dr. Fox had seen lines or streaks in lichen planus, but never moniliform bands or elevations. This was the first case of xanthoma moniliforme that he had seen.

Dr. LUSTGARTEN declared that moniliform bands in the Kaposi case were not a case of lichen planus, but more of a sarcomatous condition, which the histological methods at that time had not sufficiently differentiated. These cases should be studied in the wards of a hospital, where the metabolic changes and the effects of feeding could be studied. By this means the chemical differences in this form of diabetes from the ordinary diabetes could be discovered. This difference must exist since diabetes was very frequent while xanthoma was rather scarce. Some light might be thrown on these cases by a postmortem examination.

A Case for Diagnosis. Dr. Fox presented a young woman from the Skin and Cancer Hospital with an eruption of nodules upon the forearms and hands. The lesions first appeared eighteen months ago and disappeared spontaneously, leaving well-marked cicatrices. Six months ago a fresh crop of nodules appeared which have lessened somewhat in size under anti-syphilitic remedies.

Drs. LUSTGARTEN, FORDYCE and DADE were inclined to regard the eruption as a tuberculide.

Dr. WHITEHOUSE favored the diagnosis of syphilis.

A Case of Syphilitic Inoculation from Catheterization of the Eustachian Tube. Presented by Dr. MEWBORN.

The patient is an artist, aged twenty-five years, married, who applied for treatment at the University Clinic, May 15, 1904, with a well-developed macular syphilide which had been present for three or four days. He was carefully examined for the initial lesion, no external sign of which was to be found. There were enlarged glands, specially prominent on the left side of the neck. Following these as an index, a careful search was made of the buccal cavity without finding anything but enlarged tonsils. Upon questioning him it was noticed that he was very deaf and he was asked if he had been treated for his ear trouble. He replied that since February, or about three months previously, he had been treated in an ear clinic of a dispensary and that his left eustachian tube had been catheterized, and that the assistant had caused him to suffer considerable pain and some hæmorrhage, and that a clot of blood had been forced out of the tube when it was removed. About the 1st of May he had noticed a swelling of the glands in the neck, but that, as he had a sore throat, he had paid no attention to it. Upon making an examination of his posterior nares with a mirror a large diphtheroid-like patch was found on the left wall of the naso-pharynx. The eustachian tube opening

could not be made out. But the diagnosis was confirmed by my friend, Dr. A. E. Davis, at the Post-Graduate Hospital. At the last examination there was an ulcerated patch just above the *velum palati* on the left side. The case is shown to emphasize the danger of transmitting syphilis in dispensary practice from the use of the eustachian catheter, which is seldom given more than a perfunctory dip in an antiseptic solution.

Lichen Planus of the Oral Mucous Membrane without Skin Lesions. Presented by Dr. MEWBORN.

The patient, aged thirty-four years, a fireman by occupation, native of Ireland, is married and has four healthy children. Denies history of gonorrhœa, rheumatism or syphilis. Had malaria in 1896, since then has suffered from gastric disturbances. For two years has had an itching patch on the left forearm above the elbow which, when seen for the first time several months ago, was composed of typical lichen planus papules.

This patch has cleared up entirely except some thickening and pigmentation of the skin. On the right buccal mucous membrane are four or five round and oval pearly patches with pinkish centers, varying from lentil to bean size. On the left buccal mucous membrane opposite the last molars are matt, whitish patches separated by lines of healthy skin, giving a tessellated pavement appearance. Trautmann in his monograph entitled "*Zur differential diagnose von Dermatosen und Lues bei den Schleimhauerkkrankungen der Mundhöhle und oberen Luftwege, etc.*," divides these lesions of the buccal mucous membrane into oval and round patches which through depression and atrophy of the centers become "*ringformige*," and lines, which may be parallel along the crest of the normal folds or near the commissures may be brush-like, converging or star-like, crossed and circular lines giving the pavement appearance. He emphasizes the difficulty of differentiating lichen of the mucous membranes from syphilis as the localization, color, elevation, obstinacy and difficulty of scraping off the whitish coat are the same in both. In this case sections have been examined by Dr. Fordyce, through whose courtesy I am able to demonstrate the specimen, and have been pronounced to be typical lichen planus.

Dr. FORDYCE thought more attention should be paid to the diagnosis of lichen planus lesions of the mucous membranes.

A. D. MEWBORN, *Secretary.*

BOSTON DERMATOLOGICAL SOCIETY.

January Meeting.

DR. FREDERICK S. BURNS in the Chair.

Psoriasis or Seborrhoic Eczema. Presented by Dr. H. P. TOWLE.

The patient was a woman, aged twenty-six. She was seen for the first time on June 11, 1904, and presented a typical seborrhoic eczema about the nose, but showed lesions on the lower legs and over the trunk which resembled psoriasis. Under treatment the eruption improved until one month ago, when new lesions developed on the trunk, upper and lower arms, thighs and legs. The eruption has increased in extent and is at present quite widespread. The smaller lesions are pin-head in size and in every way typical of psoriasis. The larger spots are oval, about one-half inch in diameter, decidedly yellow in color, only slightly infiltrated and scale only at the periphery.

The members present considered the case to be psoriasis but recognized the difficulty of making in such cases a satisfactory diagnosis.

A Case of Erythema Induratum. Presented by Dr. BURNS.

Mary M., æt. twenty-six, married and has one child. The family and personal history of the patient gives no evidence of tuberculosis. Physical examination reveals nothing abnormal except the cutaneous lesions which have caused her to seek medical advice.

The disease began eight years ago on the sides of the calf of the legs and soon afterward appeared on the thighs, arms and back of the hands. Since then nodes have been constantly present although weeks have elapsed without the appearance of new lesions. These lesions begin as bean to cherry-sized subcutaneous nodules, which, at first, are noticed merely by tenderness on palpation. Later the lesions develop from mild redness to prominent, scarlet, raised nodules, which eventually fade away and go through the usual shades of oxidation. So far as the patient can remember only one lesion has ever ulcerated.

During her only pregnancy the affection was apparently held in abeyance.

The members present agreed with Dr. Burns' diagnosis of the case but remarked upon the unusual number of the lesions, their unaccustomed seats, their atypical brilliancy of color and their sensitiveness—all of which suggested erythema nodosum except for the fact that the disease is known to have lasted a period of time irreconcilable with this latter diagnosis. They were all convinced that the original description of erythema induratum was far too limited in its extent and that new cases were constantly appearing which made a wider interpretation essential.

A Case of Lymphangioma Circumscriptum. Presented by Dr. BURNS.

Marie S., æt. twelve, presented herself at the hospital in Dr. Bowen's service. Her skin affection began two years ago, presenting itself as

groups of small shining vesicles which have gradually increased in size and area. Two weeks ago there was a palm-sized area on the inner aspect of the right thigh composed of groups of pin-head-sized vesicles and sparsely disseminated, bluish-black angiomata. Under the application of contractile collodion the domes of the vesicles have sunken down and at present it is difficult to recognize by gaslight the true condition of affairs.

During the course of the disease there have been exacerbations of the eruption at fortnightly or monthly intervals accompanied by vomiting.

Dr. JAMES C. WHITE said that the case was undoubtedly lymphangioma circumscriptum. The permanency of the so-called vesicles, the hæmorrhagic nature of some of the lesions and the periodical accesses of dermatitis in the affected area established the diagnosis. The absence of the characteristic verrucous hypertrophy could be accounted for by the short duration of the disease and the youth of the patient.

The other members agreed to this diagnosis of the case.

Tuberculosis Cutis in Mother and Son. Cases presented by Dr. J. S. HOWE.

The patients were Armenians from whom it was almost impossible to gain any satisfactory information. The woman was perhaps fifty years of age and the man probably between twenty-five and thirty. According to the unreliable history obtained the man's cutaneous disease dated back ten years while the woman's developed three years later. Furthermore, it was learned that a second son was being treated by another physician for a tuberculous epididymitis of an unknown age. The man showed upon the nose a soft, boggy, red and superficially scaling lupus vulgaris presenting at the periphery of the disease a few red nodules. The woman's affection consisted of several large, flat-topped, dull red, rather spongy areas on the back of the right hand and on the posterior surface of the wrist. One of the lesions had apparently ulcerated leaving a crateriform, scaling depression.

The patients were of the wandering type and had visited several of the Boston hospitals previous to their arrival at Dr. Howe's clinic.

Drs. BURNS and TOWLE had seen the patients and had treated them for a short time with an iron-electrode lamp but their attendance had been too brief to allow of any marked benefit from this source.

Dr. HARDING had cared for the patients at one time when their lesions were more suggestive of syphilis. He had used local innunctions of mercurial ointment, but the cases soon dropped out of his sight. He now agreed to the diagnosis of tuberculosis.

Dr. SMITH had had the patients under his care just before Dr. Harding had seen them. At that time the lesions were not to be distinguished from syphilis. There were other crusting lesions scattered over their bodies which yielded to local applications of mercurial ointment and the internal administration of iodide of potash reduced the present lesions to a considerable extent but not sufficiently to render the diagnosis as clear as at present. Dr. Smith now called the cases tuberculosis.

Drs. McCOLLUM and C. J. WHITE considered the cases to be tuberculosis.

Dr. JAMES C. WHITE referred to the dictum of Hebra, who said that tuberculosis of the skin rarely developed after puberty. Hebra probably referred to lupus vulgaris, but still, in Dr. White's opinion, it was unusual to find such active, progressive tuberculous lesions as were present in the mother's case, some of which possibly suggested mycosis fungoides. Nevertheless, Dr. White would agree with the opinion expressed by the previous speakers that the disease present was tuberculosis.

Dr. HOWE, in closing, spoke of the marked dermatitis which had previously surmounted the lesions of both individuals, obscuring greatly the true underlying condition.

A Case of Tuberculosis Verrucosa. Presented by Dr. J. S. HOWE.

The patient was a man, aged forty, who worked as a mason in sewers. He said that he had bruised his skin while at work and had noticed that the succeeding inflammation did not heal readily. As time went on the several lesions developed and were accompanied by the constant formation and dropping off of crusts.

On the back of the third metacarpo-phalangeal joint there were two groups of three not very deep, red, flat-topped nodules. Over the third phalanx of the ring finger there was a gray, flat-topped, somewhat infiltrated nodule.

The members present agreed with Dr. Howe's diagnosis but were not inclined to place too much ætiological reliance on the man's occupation, Dr. McCollum, in particular, stating that the life of tubercle bacilli in sewer water was known to be brief owing to the destructive action of the other germs present.

A Case of Lupus Vulgaris Cured by the X-rays. Presented by Dr. F. S. BURNS.

Dr. BURNS brought forward the case to show that the Finsen light was not necessary to cure cases of lupus and also to demonstrate what good cosmetic results could be obtained by means of the X-rays. The case was originally an excellent example of lupus tumidus of the nose and now at the end of a year the woman possessed a comparatively normal, well-shaped organ covered with a smooth, pale, soft skin.

The members congratulated Dr. Burns on the excellent cosmetic result obtained. Dr. C. J. White referred to the much more rapid results Dr. Burns was now securing by means of a preliminary thorough curettage, thus removing the tuberculous or epitheliomatous tissue and converting the lesion into a healthy granulating wound which healed quite rapidly under the influence of the rays.

A Case of Syphilis in a Negro Closely Simulating a Tuberculide. Presented by Dr. ABNER POST.

The patient was a very black negro about forty years of age. His general health was not perfect, as he was losing weight and had had a cough during the last three years. There had been irregular joint pains and the man did not feel as strong as formerly. There were glands in the neck and a large epitrochlear swelling on one side.

The skin lesions dated back one year when most of the papules had

formed, but even now a few scattered lesions were appearing from time to time. These began as minute follicular papules, were soon surmounted by a minute yellow pustule, and finally disappeared leaving a dilated follicle or a minute jagged, serrated, depressed scar. This latter condition was especially prominent and conspicuous over the malar bones and on the forehead, while over the upper back and the deltoid regions the scars seemed to form minute depressions in the follicles.

On the right buttock there was a semi-lunar-shaped, warty growth highly suggestive of tuberculosis verrucosa, but the patient asserted positively that it had developed after a fall one month ago.

Dr. BURNS expressed no definite opinion but said that the whole outbreak suggested a possible folliclis or acnitis.

Dr. C. J. WHITE thought that the history of cough, loss of weight and of strength, and the long continued eruption with the successive stages of pustulation ending in the peculiar zig-zag scars present were all symptoms strongly suggestive of general tuberculosis and cutaneous disease allied to tuberculosis. He would call the case acnitis.

Dr. JAMES C. WHITE spoke of the difficulty attending proper diagnosis on black skins, especially at night—a difficulty which all present had alluded to—and said that the prolonged duration of the lesions and the general condition of the patient suggested the probability of a small type tuberculide as the most likely diagnosis in the present case.

Dr. POST believed the case to be a follicular syphilide. He had seen the patient in May, 1903, with a primary lesion on his penis which had been followed by severe joint pains which had confined the man to his bed. These symptoms were followed by the present type of lesions which, as previously stated, appeared about one year ago. The papulo-vesico-pustules were very numerous and especially so on the face. The throat contained many opaline patches which were still present.

CHARLES J. WHITE, *Secretary*.

CHICAGO DERMATOLOGICAL SOCIETY.

At the last meeting of the Chicago Dermatological Society the following resolution was presented by Dr. James Nevins Hyde, and was adopted by a unanimous vote:

BE IT RESOLVED, That the Chicago Dermatological Society has learned with satisfaction that the efforts to secure the meeting of the Sixth International Congress of Dermatology in the city of New York, under the Presidency of Dr. James C. White, in the year 1907, have been successful; and that this Society hereby extends to Doctor White its congratulations upon the distinguished honor thus conferred upon him; while pledging its members to a cordial and enthusiastic support in the work needed to make the Congress an eminent success.

Since the last report of the work of this Society cases representing the following dermatoses have been presented for inspection and discussion:

Lupus erythematosus.	Pemphigus vulgaris.
Sycosis vulgaris.	Nævus linearis.
Tubercular gummata (generalized).	Epithelioma, or lupus erythematosus
Chancre of nose.	(?) of lower eyelid.
Gummatous syphilide in a young girl.	Lupus vulgaris.
Herpes zoster.	Urticaria bullosa.
Pruritus, plus impetigo contagiosa.	Dermatitis herpetiformis.
Ichthyosis simplex.	Rhinophyma.
Annulo-papular syphilide resembling psoriasis.	Tuberculosis papillomatosa.
Granulosis rubra nasi.	Morphœa.
Purpura following mercurial inunction.	Vacciniiform scars on back and chest.
Xanthoma tuberosum, plus molluscum contagiosum.	Urticaria pigmentosa.
Pigmentary syphilide.	Lepra.
Sycosis, hyphogenous, plus possible tinea circinata.	Blastomycosis.
Scrofuloderma.	Ulcus rodens.
Carcinoma en cuirasse.	Raynaud's disease? or tuberculosis plus folliclis?
	Persistent pigmentation resembling purpura.

The cases of greatest interest were as follows:

1. **Carcinoma en Cuirasse.** Presented by Dr. ORMSBY.

Three years ago patient had a tumor removed from the left breast; five months previous to presentation the present trouble began. The lesions are distributed over the chest in a band about four inches wide extending from the sternum to the spinal column. They consist of a large number of small dermic nodules, bluish-red in color and very hard. The whole of the involved area is indurated. The supra-clavicular and axillary glands are also involved. The left forearm is markedly swollen. The patient suffers intensely with pain and also with tinnitus aurium. Radiotherapy was used in this case and completely relieved the pain and several months after the case was presented a great many of the nodules had disappeared.

2. **Molluscum Contagiosum plus Xanthoma.** Presented by Dr. LIEBERTHAL.

This patient, a boy ten years of age, injured his right hand about a year ago. The wound healed promptly but soon after a small flat tumor appeared on the dorsum of the hand. In the course of the following ten months a number of flat lemon-colored tumors appeared on the extensor

surfaces of the elbows and knees, one in the form of a band around a vaccination mark on the left arm and one on the back. The size of the lesions varies from one-half to two centimeters in diameter. On palpation there are found to be diffuse infiltrations around and attached to the extensor tendons of the fingers and toes and around the tendon of Achilles. Sections from one of these masses and from a cutaneous lesion showed the typical picture of xanthoma.

In close proximity to the scar left after the removal of a lesion, new tumors appear, but not within the scar tissue. The eyelids were free of lesions. The urine was normal and no history of jaundice was obtainable. On the right side of the chest near the axilla there were a few small tumors of typical molluscum contagiosum.

3. Purpura Following Mercurial Inunction. Presented by Dr. FISHKIN.

The patient, a man thirty-four years of age, gave a history of chancre and cutaneous syphilis twelve years ago, at which time he had no treatment, the lesions disappearing spontaneously. He afterward married and has a healthy child. He suffered from frequent attacks of epistaxis in early life, but has had none for five years. Five months ago purpuric spots began to appear on the lower extremities and soon after a typical tubercular syphilide appeared and is still present on the left side of the nose. He was put upon iodide of potassium and mercurial inunctions. After the third rubbing the whole arm and leg to which the medication has been applied became covered with petechiæ varying in size from a pin-head to a pea, and of various shades from brown to red, being darker and somewhat elevated around the hair follicles. While these lesions were undoubtedly due to the mercurial ointment, the older purpuric spots which appeared spontaneously may be regarded as syphilitic purpura.

4. A Case of Persistent Pigmentation Resembling Purpura. Presented by Dr. HYDE.

Man, aged thirty-one. General health fair; no organic disease. Present trouble began two-and-a-half years ago, as a dime-sized patch on the right foot. New areas appeared during the next one-and-a-half years, and are now scattered over the legs and thighs. They are sharply defined, irregular in outline, and vary in size from one-fourth to two inches in diameter. The disorder consists of a reddish or brownish-yellow pigmentation, the hue varying with the age of the lesion. Recent areas are covered more or less completely with irregular-shaped dots and lines of a bright red color. In the course of months, the red hue gradually fades out, leaving a brownish-yellow pigmentation, which in the course of a year or two fades to a pale yellow or fawn color. No lesions have entirely disappeared. Pressure produces little or no effect on the color of the lesions. Aside from pigmentation, the skin appears normal. Histo-

logical examination shows that the case is not one of purpura, but a very slight subacute inflammation, limited to the upper part of the corium.

5. Lupus Erythematosus. Presented by Dr. HYDE.

Patient aged twenty-eight. Duration, nine months. Unusually rapid development. Showed marked annular configuration, and has been much improved under radiotherapy.

6. Xanthoma Multiplex. Presented by Dr. HYDE.

Man, aged thirty-three. Duration, three years. Lesions located on elbows, knees, buttocks, palms; consist in the main of very small nodules. No constitutional findings. Urine normal. Histological pictures characteristic.

7. Lepra, Maculo-anæsthetic type. Presented by Drs. HYDE, MONTGOMERY, and ORMSBY.

Man, aged twenty-five. Duration of disease, seven years. Patient born in Australia. Has traveled as a sailor extensively. Was associated once for nine months with a man supposed to have lepra. A number of areas of anæsthesia and discoloration are present on the back, arms and limbs. The great auricular and ulnar nerves show marked enlargement. General health not impaired.

8. Sycosis Vulgaris. Presented by Dr. MONTGOMERY.

Severe, extensive. Ten years' duration. Several months previous to exhibition, the patient had six X-ray treatments, which produced erythema, followed by desquamation and exfoliation of the hair, and apparent cure. Recently, as the hair began growing, the disease recurred, beginning on the lip and soon covering the entire area, but more superficially than before. X-ray treatment is again being used, with decided improvement in the condition.

9. Granulosis Rubra Nasi. Presented by Dr. ORMSBY.

Boy, aged eight. Duration of the disease, one year. Child delicate and anæmic and suffers from catarrh. The area involved is limited to the nose, covering the tip and extending over either side (more marked on the right) and upward toward the bridge. The lesions consist of small, translucent, and brownish-red papules, situated on an erythematous base, the degree of erythema varying at times. Large beads of sweat are constantly present. There are no subjective symptoms.

10. A Case of Chancre of the Nose. Presented by Dr. ANTHONY.

The patient was a young woman with an ulcer on the left side of the skin of the nose which presented the typical appearance of "*Ulcère en godet à bourellet dure*." That is, it was a superficial ulcer surrounded by a hard rim of indurated integument which elevated the border and caused

this superficial ulcer to present the appearance of being quite deep. The ulcer had a diameter of two centimeters, a regular outline and slightly oval form. It bled readily and when squeezed blood and serum exuded but no pus (Symptom of Leloir). The base of the ulcer was of a red color, smooth and shiny. The glands on both sides of the neck were enlarged in packets and were not painful. There was no eruption of the skin, mucous membrane of the mouth or about the genitals, and no history of previous venereal disease. Six weeks ago the patient had a papule in this location which she picked, after which the ulcer appeared and gradually extended. The contagion was probably derived from her paramour. The exigencies of the case necessitated treatment before the eruption appeared.

11. Generalized Tubercular Gummata. Presented by Dr. SCHALEK.

Man, twenty-nine years of age, telegraph operator. No family history of syphilis or tuberculosis, except that the mother was troubled with enlarged glands of the neck. No history of venereal disease. The present skin affection began at the age of nine years, continuing to the present time. It started with swelling, inflammation and breaking down of the submaxillary and cervical glands of both sides, the ulceration slowly spreading to the cheeks and ears. New foci appeared from time to time all over the body, without special predilection for the lymphatic glands. Injections of tuberculine in 1901 produced characteristic reaction. The present state shows old, atrophic scars, which are smooth and pliable, covering both sides of the neck, both cheeks, and reaching the ears, which are partly destroyed. They are formed in coalescing islets, showing the spreading of the original ulcers. Scattered about the trunk, especially the back and over the lower extremities, are linear scars, smooth or hypertrophic, some attached to the periosteum below, and recent ulcerations. The most recent lesion is found over the left iliac crest, which is a straight ulcerating sinus, two inches long and extending to the bone. The edges are thin, undermined and of a violaceous color. On pressure, thick pus exudes freely. Of interest is the aspect of the scars on the face, which are entirely different from those usually following scrofuloderma.

12. Gummatous Syphilide. Presented by Dr. CAMPBELL.

This patient, a girl of sixteen, gave no history of previous syphilitic manifestation of any kind nor could any history of parental infection be obtained. The general opinion of those present when the case was exhibited was that it was nevertheless Syphilis Hereditaria Tarda.

13. Ichthyosis Simplex. Presented by Drs. HYDE and MONTGOMERY.

This case was of interest in that the skin of the patient, a man of thirty, appeared at first glance to present the features of pityriasis rubra

pilaris, but as he had been under observation for some time the unusual inflammatory appearance of the eruption was known to be temporary.

14. Blastomycosis. Presented by Drs. HYDE and MONTGOMERY.

The patient, a Greek, twenty-four years of age, a resident of this country for three years, with a negative family history, presented characteristic lesions on the left cheek and eyelids. Budding organisms were demonstrated in pus removed from the miliary abscesses at the time the patient was exhibited.

15. Epithelioma (Rodent ulcer type). Presented by Dr. ORMSBY.

The patient, sixty-nine years of age, has suffered from the disorder for thirteen years. Two-thirds of one cheek, half of the nose, the eyelids and contents of the orbit, the eyebrow, and external plate of the cranium had been eaten away, leaving a formidable cavity. Notwithstanding the long duration of the disease and the extensive destruction of tissue, there was no enlargement of neighboring glands.

16. Lepra Tuberosa. Presented by Drs. HYDE and MONTGOMERY.

The patient, aged twenty years, born in Russia, came to America six years ago, and gives a negative family history. His family physician states that the present disease began three years ago as "inflammatory rheumatism" and "erythema nodosum"; fever, epistaxis, and pain being conspicuous symptoms. Each succeeding year similar attacks, each lasting two months, have occurred. The patient's general condition is good. The face shows, on the forehead, eyebrows, nose, and cheeks, areas of diffuse infiltration and a few tubercles, with some pigmentation, which accentuate slightly the normal lines and folds of the integument, and produce in mild form the characteristic facies of this disorder. Areas of infiltration, pigmentation, and of absence of pigment, together with a few tubercles, are seen on the forearms, hands, thighs, legs and feet. On the forearms and thighs are seen irregular areas, varying in size from half an inch to an inch-and-a-half in diameter, studded with discrete pin-point to pin-head-sized brownish-yellow pigmentations, some of which show also slight atrophy of the tissue and suggest the pigmentation left by a resolving miliary papular tuberculide or syphilide. There are numerous areas which are more or less anæsthetic, though the tactile sense is but slightly diminished. The ulnar nerves are thickened. There is alopecia of the eyebrows. The mucous membrane of the nose is studded with pin-head-sized and larger, irregular, sharply-defined, shallow ulcers, together with small tubercles and crusts. Slides were exhibited showing bacilli in sections of tissue and in a smear made from the nasal secretion.

17. A Case of Pemphigus. Presented by Dr. ZEISLER.

The patient, a woman about forty years old, is the wife of a butcher. The latter circumstance is mentioned as a point in the etiology. The char-

186 REVIEW OF DERMATOLOGY AND SYPHILIS.

acter of the case is benign, though bullæ often appear in the mouth. An interesting feature is the formation of multiple milium bodies on the site of former lesions.

18. Case for Diagnosis. Presented by Dr. PARDEE.

This patient, a woman of forty, presented on the lower left eyelid a lesion nearly confined to the ciliary margin. It extended from the outer a little more than half way to the inner canthus, and was progressing very slowly, having been of two years' duration. In appearance it was of a dull red with a slightly raised margin and an atrophic center. The eyelashes in its extent have been destroyed. There was a very slight amount of induration. No scales or crusts were present, and no subjective symptoms complained of other than a slight tension and irritation.

Opinion regarding the diagnosis differed, some regarding the case as typical superficial epithelioma, while others thought it a mild form of lupus erythematosus. Owing to its location no sections could be made.

19. Urticaria Pigmentosa. Presented by Dr. LIEBERTHAL.

A typical case of this disease in a child three years of age. The lesions were generally distributed and the disease had been present since the fourth week after birth.

Several cases in the preceding list will be published in full and, consequently, are mentioned here by title only.

L. C. PARDEE, Secretary.

REVIEW of DERMATOLOGY AND SYPHILIS

Under the Charge of JOHN T. BOWEN, M.D.

BENIGN NEW GROWTHS

By OLIVER S. ORMSBY, M.D., Chicago.

Xanthoma Tuberosum, with Tumor Formation, A Case of. DUHOT.
(*Annals Polyclin Centr.*, 1901, No. 6.)

In addition to the ordinary tubercles of xanthoma, this case presented several tumor growths. The case was that of a working man, aged fifty-six years. The duration of the disorder was seven years. There first appeared a tumor the size of a large nut on the right elbow, around which papules later developed. The region involved finally with these growths were the elbows, hands, fingers, gluteal region, and posterior surface of the lower limbs down to the knees. The general surface of the skin was icteric, and the urine was normal.

Xanthoma, or the "Mushroom" Growth, On a Certain form of.
W. MOSER. (*New York Med. Jour.*, Oct. 10, 1903, p. 689.)

This was a record of an Italian boy "covered" with deeply-situated, pea or marble to hen's-egg, or larger, sized, bright yellow tumors, occurring chiefly over tendons and bursæ. The microscopic findings reported were that the growth was composed chiefly of fibrous tissue, with a few cellular elements, which were polymorphic in character and pigmented. The color of the lesions was attributed to the yellow fibrous tissue and the pigment. The chief points of interest are summed up as follows: The large size and deep situation (subcutaneous) of the tumors; their mushroom appearance; smooth, even surface; their occurrence over tendons and bursæ; absence of icterus; negative findings in the urine; and their occurrence in childhood. This case is here noted because of its interesting features, and is not given as an example of xanthoma as now classified.

Xanthoma, A Report on Generalized, Especially that Associated with Tumor Formation. RICHTER. (*Monatsh. f. prakt. Derm.*, Vol. 36, pp. 57, 126, 1903.)

The author describes minutely the histologic picture in xanthoma tumefactum and xanthoma tuberosum (non-glycosuric), and describes in the former three varieties of cells, which correspond to the stages in the formation of the xanthoma cell; first, the connective-tissue cell; second, the transformation cell; and, third, the true xanthoma cell. Giant-cells were also noted.

F. PARKES WEBER (*Brit. Jour. Derm.*, Vol. 13, p. 216, 1901) presented a case before the London Dermatological Society of vitiligo-like patches of xanthoma on the neck, and ordinary raised xanthoma on the eyelids and upper extremities, in a patient fifty-one years of age. Some-time earlier the patient had undergone an operation and had biliary calculi removed. Biliary cirrhosis was present. The urine contained a moderate amount of bile pigments, and a trace of albumin, but was free from sugar. The skin was also the seat of pruritus and much pigmentation.

Dr. ABRAHAM (*Brit. Jour. of Derm.*, Vol. 13, p. 469, 1901) presented the case of a woman, aged thirty-two, the subject of diabetes mellitus and xanthoma diabeticum. It was reported that this was the second case of this character in a woman, Gendres' (*Crocker*, 2d Ed. p. 459, 1893,) being the first. In this connection the two following cases presented before the New York Dermatological Society are of interest. The first, by S. Lustgarten (*Jour. Cut. Dis.*, Vol. 21, p. 167, 1903), was the case of a woman, aged forty-two, the subject of xanthoma diabeticum. The urine contained from four to five per cent. of sugar. Dr. Johnston stated that with Dr. Sherwell he had previously reported this case. The second, by Dr. Fox (*Jour. Cut. Dis.*, Vol. 21, p. 233, 1903), was the

case of a woman, aged twenty-eight, the subject of xanthoma diabeticum. She suffered at times with attacks of biliousness. On both upper and lower eyelids patches of xanthoma were present, and these Dr. Fox considered similar to the nodules on the body, and not the ordinary xanthoma planum. The arms (especially on the flexor surfaces), trunk, and abdomen were the seat of a papular eruption. The papules lacked the usual reddish hue, but when viewed from above presented a slightly yellowish tinge. The urine had a specific gravity of 10.44 and contained $9\frac{3}{10}$ per cent. of sugar.

J. H. SEQUEIRA (*Brit. Jour. of Derm.*, Vol. 13, pp. 56, 270, 1901) presented two cases of xanthoma of the diabetic type, without glycosuria. The first was that of a woman, aged forty-five years, who gave a negative personal history. The lesions, which were of six months' duration, were situated on the back, chest, neck, buttocks, and limbs. Those on the back and chest were small, pinkish and yellow, flat papules. Those on the neck and buttocks were small tumors, two to four millimeters in diameter. The flexor surfaces of the limbs were chiefly involved. The histological picture was similar to that described in the diabetic form. The new growth was situated in the corium and its bulk consisted of a collection of small, round cells. The connective-tissue cells were large, some spindle-shaped, some ovoid, being usually mononuclear; a few were polynuclear. In some cells there was a fatty change, and between the cells there was some yellowish granular material. The second case was that of a patient aged thirty-five years, also with a negative personal history. The small xanthomatous tumors, of eighteen months' duration, were situated on the elbows, arms, forearms, lower part of the back and buttocks, and knees. Upon the forearms they were arranged in chains, with a circinate configuration. To a lesser degree this existed about the knees. On the buttocks and limbs, where the lesions were larger, they were surrounded by a narrow red areola.

Xanthoma Diabeticum, A Case of. MARULLO ANTONINO (*Derm. Zeitsch.*, Vol. 10, p. 354, 1903).

Marullo Antonino reports the case of a laboring man, aged forty-four years, the subject of diabetes and xanthomatous lesions of both the common and diabetic type. The microscopic picture in his case indicated signs of inflammatory action, and the author was led to conclude that some irritative process (diabetes, etc.) induces fatty degeneration in the connective tissue elements of the skin, producing the xanthomata.

Xanthoma Tuberosum Multiplex, A Case of. LEONHARD LEVEN. (*Archiv f. Dermat. u. Syph.*, Vol. 66, p. 61, July, 1903.)

The author describes the case of a man, aged forty-three, the subject of the usual lesions found in this variety of xanthoma. He studied the case histologically and concludes that xanthoma tuberosum multiplex

and xanthoma tuberosum multiplex symptomaticum belong to one group, but both histologically and clinically are different from xanthoma palpebrarum.

Xanthoma, A Clinical Consideration of Three Cases of Glycosuric.

BOSELLINI. (*Clinica Medica*, No. 11, 1900.)

Bosellini reports cases of glycosuric xanthoma in men aged, respectively, thirty-seven, forty-five and fifty-five years. He concludes that the lesions may be plain papular, or nodular, and occupy the eyelids or any other part of the body in diabetic xanthoma, and attributes the difference in color (yellow in the plain, rosy-yellow in the nodular) merely to different stages in the development of the neoplasm. He also states that there are no essential clinical differences between a xanthoma associated with glycosuria and that associated with other diseases, as there is but one xanthoma.

Xanthoma, A Case of. JAMES MCFARLAND. (*Proc. of the Path. Soc. of Phila.*, Feb., 1904.)

This report was made from a case of xanthoma in a white person, American-born, eighteen years of age, of stunted growth; who gave a history of occasional attacks of jaundice. After a careful histological study, in which the author describes the usual structure of xanthoma, he concludes that the cells in xanthoma belong to some genus whose members have a normal fat-forming or fat-storing tendency, and that these cells no doubt multiply and penetrate into the tissue and continue in all directions their normal tendencies.

Xanthoma Elasticum, A Contribution to the Study of. GOTTLIEB V.

TENNENHEIM. (*Wien. Klin. Wochensch.*, No. 42, p. 1910.)

The subject of this report was an adult woman. The lesions were located on the anterior portions of both forearms, over the crests of the ilei, and presented irregular deposits, opaque and yellowish in color. Histologically, the deposits consisted of masses of partly decomposed and rolled-up elastic fibers. Xanthoma cells and other fat-containing elements were present. Other similar cases have been reported by Balzer, Darier, and Bodin. They all occurred in middle life.

WILMONT EVANS (*Brit. Jour. of Derm.*, Vol. 14, p. 465, 1902) presented a case of xanthoma of the elbows. The lesions which had occupied one elbow had been removed by radiotherapy. To accomplish this result, he used exposures of fifteen minutes' duration, a fairly soft tube, and repeated the treatment ten times.

LEVISEUR (*N. Y. Med. Rec.*, Dec. 7, 1901) advised the removal of xanthomatous lesions by means of electrolysis.

190 REVIEW OF DERMATOLOGY AND SYPHILIS.

Xanthelasma, Electrolytic Treatment of. PANSIER. (*Arch. d'Electr. Medicale*, July, 1902.)

The author advises the use of the negative pole, with a current of from six to ten milli-ampères for two minutes. He states that several needles may be used at once, and also that a steel needle may be used with safety without pigmentation. He reports that he obtained soft, non-retractile scars, and advised that the treatment be used once in two weeks. If painful, he applies before treatment menthol and chloral, of each, three grammes; lanolin, six grammes.

THE TREATMENT OF SYPHILIS.

By F. J. LEVISEUR, M.D., New York.

Syphilis Continuously Treated by Intramuscular Injections of Mercury Salicylate. D. A. SINCLAIR. (*N. Y. Med. Journal and Phila. Med. Journal*, Oct. 22d, 1904.)

The author believes that the hypodermic or intramuscular method of treating syphilis is more satisfactory than any other. He uses salicylate of mercury according to the formula which was first introduced by Keyes and Chetwood: $1\frac{3}{4}$ grains to 30 minims of liquid benzoin. This is put up in vials and one vial is injected every week. The injection, if used with antiseptic precautions, does not produce abscesses. Only in five cases out of six hundred, symptoms of pulmonary embolism appeared. They were slight and though alarming to the patient while they lasted were never followed by any serious consequences. Sometimes there could be observed a general feeling of malaise with loss of appetite coming on twelve hours after the injection and lasting for twenty-four hours. These attacks are most liable to occur after the first two injections. There was also, in a few instances, a rise of temperature to 100° F. In nearly every case local complications were absent, except perhaps slight lameness and a dull pain. Subcutaneous infiltrations varied in size from a hazelnut to a walnut. They remained from a few days to a few weeks, never suppurated and finally disappeared completely. The application of hot cloths and the use of gentle massage hastened their disappearance. According to the author the most favorable site for the injection is the gluteal region, next comes the calf of the leg or the muscles of the back and chest. The skin is cleansed with alcohol or ether, then the needle of the syringe is heated in the flame of an alcohol lamp. The solution should be warmed and shaken vigorously, after which it is poured into the barrel of the syringe from which the piston has been removed. The latter is now returned and the full syringe held in a vertical position so that air bubbles may rise to the base of the piston. With a straight quick thrust the needle is pushed into the muscular tissue and the contents of the syringe are slowly injected. After the quick withdrawal of the needle a dry piece of cotton is placed over the point of injection and gentle massage is kept

up for a minute or so. Finally the puncture is sealed up with flexible collodium and absorbent cotton. The operation requires not more than four or five minutes.

From the concluding remarks of the author it seems that he keeps up these weekly injections as long as the patients can be made to submit to them. A period of three years is mentioned.

NOTICE.

THE ROENTGEN CONGRESS IN BERLIN.

April 30th to May 3d, 1905.

The Berlin Röntgen Society (Röntgen Vereinigung zu Berlin, E. V.) has arranged for a congress in commemoration of the first decennial of Röntgen's discovery to be held under the auspices of Excellenz von Bergmann, Ehrenpresident, and of an Honorary Committee headed by the Prussian Minister of Instruction and His Majesty's Physician the Surgeon-General of the Prussian Army and including the President of the third Congres d'electrologie et de radiologie for those in Germany and also in other lands interested in the investigation, technique and employment of the Röntgen ray.

The Congress as well as an Exhibition of Apparatus, Radiograms, etc., will be held in the rooms of the "Ressource" in the Latin quarter of Berlin (N. 24, Oranienburgerstrasse 18) for the four days succeeding Easter week.

Cards of Membership will be issued from April 27th, 1905, at the Bureau of the Congress. The cost of the same, entitling also to the volume of proceedings, is 15 marks, or \$3.60, which may be sent in advance to the treasurer. For further information address,

HERR DR. IMMELMANN, *Secretary*,
72 Lützowstrasse,
Berlin, W.

BOOK REVIEWS.

A Pictorial Atlas of Skin Diseases and Syphilitic Affections, in photo-lithochromes from models in the museum of Saint Louis Hospital, Paris, with explanatory woodcuts and text. By E. BESNIER, FOURNIER, TENNESON, HALLOPEAU, DuCASTEL, with the co-operation of HENRI FEULARD and L. JACQUET. English edition and annotations by J. J. PRINGLE, M.B., F.R.C.P. Second revised and improved edition. Rebman Company, London and New York, 1904.

To those who have not had opportunity of studying the admirable wax models in the Baretta Museum, Saint Louis Hospital, Paris, this atlas will give a good insight into part of that wealth of material, and those who have had the pleasure and profit of a visit to that museum will find this publication a most convenient and permanent reminder, and will be willing to attest to the faithfulness and artistic excellence of these pictorial copies. In coloring and truthfulness of representation one could scarcely criticize any of the plates adversely—they are true to the wax models and therefore, as we know, true to nature. To single out plates for special praise would be invidious, for with but few exceptions they are all good

and well selected. Among those diseases shown and given strong pictorial representation may be mentioned lupus erythematosus, psoriasis, mycosis fungoides, purpura, dermatitis herpetiformis, deep-seated ringworm, Paget's disease, extra-genital chancres (lip, tongue, tonsil, face, breast), and the more severe syphillodermata (rupia and gummata).

Another praiseworthy feature about the second edition of this publication is that the plates are loose in portfolio, and have an accompanying bound volume containing a description of the plates, history of many of the cases, and the treatment. This latter volume is the more valuable from the fact that it contains smaller replica in black and white of many of the colored plates, with, when necessary for elucidation, diagrammatic description. The clear and succinct but sufficiently full annotations and review of treatment by Dr. Pringle, give additional strength to an already inherently strong publication.

This atlas is a reminder of what we owe to our Continental confreres for their accurate and artistically colored representations of diseases of the skin, and among the excellent atlases there published, this and that by Jacobi (English edition also edited and annotated by Dr. Pringle), both of recent date, stand out pre-eminent, and for purpose of study and demonstration, the pictures come about as near to actual living cases as it is possible to conceive.

H. W. S.

The Differential Diagnosis of Syphilitic and Non-Syphilitic Affections of the Skin, Including Tropical Diseases—By GEORGE PERNET, Assistant to the Skin Department, University College Hospital, London. Adlard and Son, London, 1904. Pp. 219. Cost, 6s. 6d.

This book has one feature strongly in its favor, and that is its exceeding lightness. In these days when medical books are made of such heavy, highly-glazed paper, it is a pleasure to pick up one that is light and with dead-finished surface to its leaves. The absence of illustrations explains this. But had the author added illustrations he would have made his book of far more value and we would have accepted with pleasure the increased weight. Our author has made a most careful and painstaking study of his subject and presented us with a very complete list of diseases that might by any chance be mistaken for syphilis. Syphilis is a very protean disease, and at times is difficult of diagnosis. Most often, however, it writes itself so plainly on the skin that it is very easy to read the diagnosis.

The title of the book is somewhat misleading. It is not only a book on differential diagnosis. The symptoms of the initial lesion, the secondary and tertiary lesions, and congenital syphilis are quite fully given, and following each one of these diversions of the subject the points in differential diagnosis between them and diseases in any wise resembling them are given. To anyone seeking light upon a doubtful case, this book would be a safe and faithful guide.

After looking over the book, the question is forced upon us: Is it worth while to publish such a book? Worth while from the publisher's standpoint—the pecuniary return? Worth while from the author's standpoint—the professional reputation return? Worth while from the student's standpoint—the educational return? It seems to us that it is not worth while from any of these standpoints. It seems a pity that the author has gone so far and not further. Had he added a few pages upon the treatment of syphilis he would have sent forth a book that would have been worth while from all the three just mentioned standpoints. As it is, no student or physician who has such a work as that of R. W. Taylor on Venereal Diseases, to mention but one work, has any need of this book.

G. T. J.

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PAGET'S DISEASE(?) OF THE GLUTEAL REGION; THE EFFECT OF THE ROENTGEN RAY UPON THE DISEASE.

By JOHN A. FORDYCE, M.D., New York.

Professor of Dermatology in the University and Bellevue Hospital
Medical College.

THE clinical features as well as the histological characteristics of Paget's disease of the nipple have been so frequently described that they are now generally recognized. The degenerative changes in the epidermis leading to the formation of coccidia-like bodies are so constant that they are looked upon as fairly typical of the affection in question. While they are no longer considered as parasitic invasions, their diagnostic importance should not be overlooked, as in no other skin affection are they so numerous or so well defined.

There is still considerable difference of opinion as to the occurrence of malignant proliferation of the epidermis in this affection of the nipple. It has been asserted that true epithelioma starting from the epidermis does not occur, and indeed the evidence in support of a malignant change in the epidermis is not of a convincing character. The chief source of misconception in this regard arose from confusing the proliferating glandular cells of the lactiferous ducts, when they invade the corium, with those of epidermic origin, as well as from the association of the skin affection with the malignant disease of the breast. (Jackson and Schultze, *JOUR. CUT. DIS.*, 1903, XXI., 205.) The writer's own investigations support this contention of Schultze, for in five cases of Paget's disease of the nipple which he has examined there was no proliferation of the epidermis which could be looked upon as epitheliomatous. The chief interest connected with the disease is its association, in the majority of cases, with carcinoma of the glandu-

lar structure of the breast. Aside from this association the skin changes are so definite and constant that we can generally speak with certainty regarding the nature of the affection before the mammary tumor develops.

In other regions than the breast superficial epitheliomata, with a tendency to spread in a serpiginous manner and cicatrize in parts, are met with which present many of the features of the affection about the nipple. From the objective appearance alone a differential diagnosis is sometimes impossible. (Darier, Article, "Maladie de Paget," *La Pratique Dermatologique*, Tome 3, p. 631.) A recognition of the difficulties which may attend the differential diagnosis of this type of flat epithelioma from extra-mammary Paget's disease has led the writer to report the following case which presented features common to both affections and seemed to show that transitional forms might exist.

The patient, a woman sixty years old, gave a negative family history. She was subject to a chronic cough and passed a large amount of urine.

Physical examination showed normal lungs. She had a pronounced cardiac hypertrophy with aortic regurgitation and stenosis. Her urine contained no albumin. She received an injury about seven years ago on the left gluteal region at the site of the present trouble. About a year later she noticed a dark red spot where she had been struck by the wheel of a vehicle. The lesion slowly increased in size and was at times somewhat painful, but never gave rise to a discharge which was at all pronounced. It bled on slight provocation, however, and she had always been conscious of its presence.

An examination showed an irregularly rounded, flat, dark red lesion involving an area about three inches in diameter. The margin was somewhat polycyclic in outline and was sharply defined against the normal skin. It showed the faintest trace of an elevated rolled edge. The lesion was dry, and showed slight epidermic exfoliation, with the exception of a portion, three-quarters of an inch wide, in the center, which was eroded, nodular, and bled on slight irritation. In its color, general appearance and slow eccentric progression it was strikingly similar to the usual type of Paget's disease of the nipple, and had it been in that location few would have hesitated to give it that name.

Numerous biopsies were made from the periphery to the center of the lesion before, during and after treatment by the Roentgen ray, for the purpose of studying the histology of the disease and for observing the effect of the ray on the new growth.

She received ten X-ray exposures at intervals of a week, each seance averaging about ten minutes. The target was held at a distance of four to six inches from the affected area. A pronounced reaction was observed after six or seven sittings.

During this treatment the lesion apparently became much larger, was painful, discharged pus freely, and apparently extended at the margins.

The use of the ray was discontinued under the impression that it was doing the patient harm. After a week or two the discharging surface rapidly healed under aristol and after a month the sore had completely cicatrized, leaving a smooth scar which showed only slight thickening where the biopsies had been made.

The tissue excised by the cutaneous punch was fixed in the following solution:

Müller's fluid and formalin (5 per cent.) equal parts,
Acetic bichloride solution,
Hermann's solution,
Alcohol, absolute and graded.

Serial paraffin sections were cut and stained with hæmatoxylin and eosin, hæmatoxylin and orange g., polychrome-methylene blue, Van Giesen's connective tissue stain and Weigert's stain for elastic tissue. Gram's method was used for demonstrating micro-organisms; Plimmer's, Monsarrat's and Pelagatti's method for demonstrating cancer bodies.

HISTOLOGY.

From the periphery of the lesion. The outer margin of the patch which macroscopically was made up of dark red, slightly scaly skin with a miniature rolled edge, presented the most recent and characteristic changes. The upper corium was the seat of a dense cellular infiltration which was composed of lymphocytes, plasma and mast cells (Fig. 1). The vessels were dilated and their lining cells swollen.

The cellular infiltration showed some tendency to follow the vessels into the subpapillary region of the corium, but as a rule it was sharply limited to the region mentioned.

In all essential respects, especially in the preponderance of plasma and mast cells, it was identical with that found in Paget's disease of the nipple.

The most striking changes were met with in the epidermis, which showed numerous bulging, club-shaped processes, starting from the basal layer, which were in places mechanically detached from the un-

derlying cutis. The basal layer was not affected in a continuous manner, but only in foci where the nuclei were rich in chromatin and evidently actively proliferating (Fig. 1).

These foci of darkly stained and growing cells were sharply defined from the adjacent normal cells of the epidermis. As these acanthotic club-shaped masses increased in size the nuclei of the constituent cells became larger, ovoid and paler—presumably from œdema—while their protoplasm was filled with vacuoles and only a delicate, unstained network showed (Fig. 2). This vacuolization extended towards the surface and there the process was sharply defined by superimposed prickly cells presenting changes of compression. Some migrated leucocytes were seen between the cells.

The proliferation of the basal and prickly cell layers was the earliest and most important change noted in the epidermis. This growth did not continue, however, into the corium and give rise to independent foci as in rodent ulcer, but the cells soon became œdematous and lost their power to grow. The epidermis between the œdematous acanthotic pegs was thinned, the stratum corneum missing in places, and many cells of the Malpighian layer presented a clear space about their nuclei. The pseudo-coccidial bodies were not present in characteristic forms, however, as in Paget's disease of the nipple, although in all other essential respects the process was closely allied to that met with on the breast.

Advancing from the edge towards the center of the lesion, the vacuolization became less marked, the nuclei were smaller and stained more deeply. This was especially true of the basal layer, which showed a tendency to deeper invasion of the corium. The inflammation extended deeper down in the tissue, but grew progressively less from periphery to center—the cellular elements maintained about the same relative proportion.

From the Center of the Lesion. The center of the patch was eroded and the seat of several elevated, warty, pea-sized growths.

One of these was removed with the eutaneous punch and showed on section the structure of a small-celled epithelioma of the rodent ulcer type (Fig. 3). The epidermis was absent in places and where present was disintegrated and infiltrated with leucocytes.

Numerous hydropic and vacuolated prickly cells were seen which more closely resembled those seen in Paget's disease than was the case in sections from the margin of the patch. The tumor process extended deep into the corium and was composed of cells with large ovoid nuclei surrounded by a narrow rim of faintly stained protoplasm.

Some of the cells showed indistinct prickles and many of them mitotic figures.

The inflammatory reaction throughout the cutis was not very marked. The cells were irregularly disposed and were of the same nature as in the other sections. The blood vessels were distended and filled with blood. In the upper portions Weigert's stain showed a degeneration of the elastic tissue. Lower down the fibers stained well and could be seen between the groups of cells.

The tissue removed from the center of the patch during the inflammatory reaction produced by the Roentgen ray showed a marked infiltration of the cutis with many mono- and polynuclear leucocytes, together with some plasma and mast cells (Fig. 4). The vessels were distended and sheathed with cells as far down as the sweat coils. The epidermis was absent, but here and there in the upper corium a number of small epithelial foci, consisting of not more than half a dozen cells in each, were noted. There was a complete absence of tumor formation.

A peculiar feature of the microscopic picture was a mucoid degeneration of the connective tissue about the sweat coils, as evidenced by the pale blue stain with hæmatoxylin (Fig. 5).

This degeneration was probably the result of the X-ray treatment, as it was not noted in sections examined before the treatment was begun.

The cells lining the sweat glands also showed pronounced degenerative changes. They were swollen so that the lumen of the coils was frequently obliterated, while the boundaries of the individual cells were no longer present (Fig. 5). A single nucleus was sometimes noted in a mass of cytoplasm which represented several fused cells. Other nuclei were deformed or fragmented.

The changes noted in and about the coils indicated a deeper action of the ray than is ordinarily supposed and suggested its use in functional disturbance of these structures.

The tissue removed after the inflammatory reaction had subsided and cicatrization of the ulcer was complete showed the appearance of scar tissue (Fig. 6). The papillæ were obliterated, the basal and prickle cell layers were fairly normal; three or four layers of granular cells were present, while the stratum corneum was imperfect or absent.

An examination of the patient twelve months after the cessation of all treatment showed a scar which was in all respects healthy, with no evidence of any recurrence.

From the observation of this case and other cases of superficial epithelioma in which an apparent cure has resulted from the X-ray it would appear that the best results are obtained after a decided burn has been produced.

The case which has been described presents several points of interest aside from the observations of the effects of the Roentgen ray on the disease. Although a number of well authenticated cases of Paget's disease have been described of other regions than the breast (see Fox and Macleod's article "On a Case of Paget's Disease of the Umbilicus," the *Brit. Jour. of Dermat.*, 1904, Vol. XVI., p. 41, for full résumé of the literature) it is not at all certain that all conformed in their clinical and histological features with the well-known affection about the nipple. Some of them were probably superficial epitheliomata of the type mentioned by Darier.

If the clinical features alone are to guide us in making a diagnosis, the writer's case might be called one of Paget's disease because of its long duration, its superficial site and its slow peripheral extension with polycyclic margins. The absence of a pronounced elevated edge and the presence of the characteristic dark red base were additional features which brought it into relationship with Paget's disease.

Many of the histological features of the case in question correspond to those which the typical affection presents, notably the œdematous swelling of the prickle cells, sharply defined from the adjacent healthy epidermis, and the presence of a dense infiltration of plasma and mast cells. The miniature rolled edge at the margin of the growth was due to the proliferating basal and prickle cell layers, and suggested the initial changes of rodent ulcer. In the latter affection, however, it is not usual to see multiple foci in the epidermis, nor do we often see the hydropic degeneration of the cells so far advanced. If the microscopic examination had been limited to the tissue from the periphery of the lesion, or had been made at an earlier period, it is quite probable that additional reasons might have been found for considering the affection one of extra-mammary Paget's disease.

The absence of well-defined pseudo-coccidia in the epidermis as well as the presence of marked proliferation in the center of the patch, of a rodent ulcer type, were the chief arguments which could be invoked against the histological diagnosis of Paget's disease.

Until the ultimate cause of the latter affection is revealed cases similar to the one in question must be classed as of doubtful nature or as transitional forms between some of the less common types of superficial epitheliomata and the well-known precancerous condition of the breast.



FIG. 1.

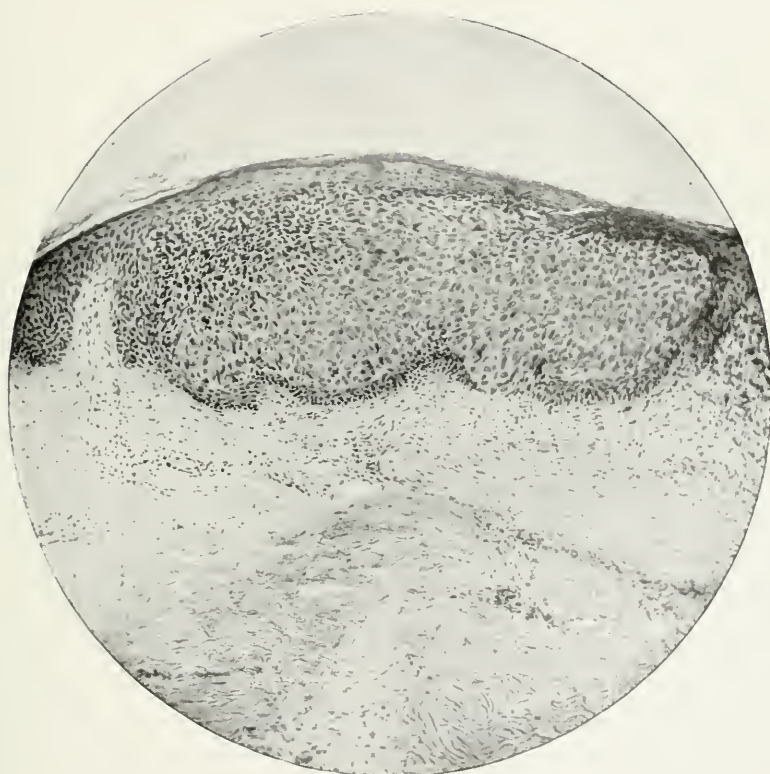


FIG. 2.



FIG. 3.



FIG. 4.

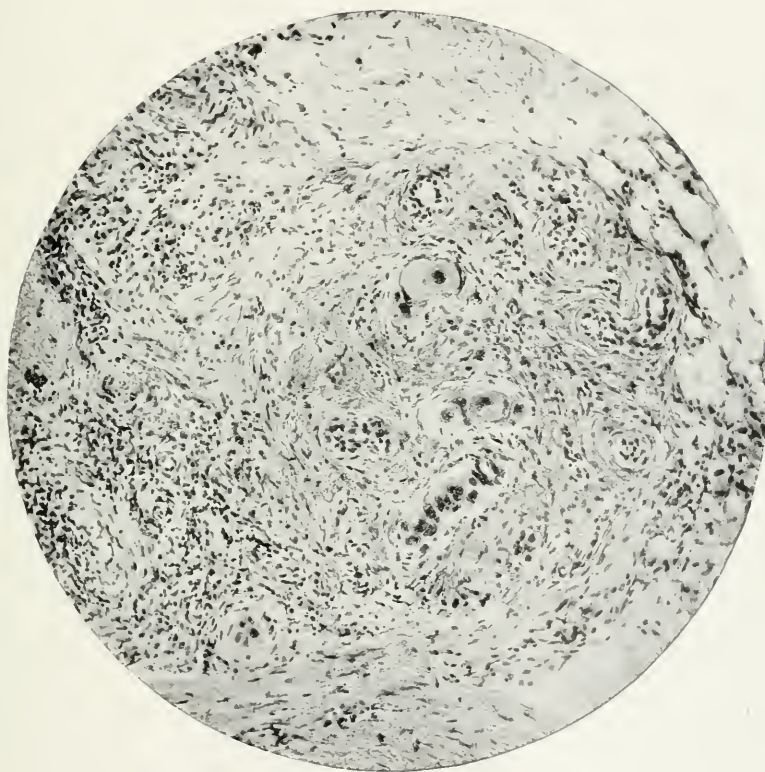


FIG. 5.

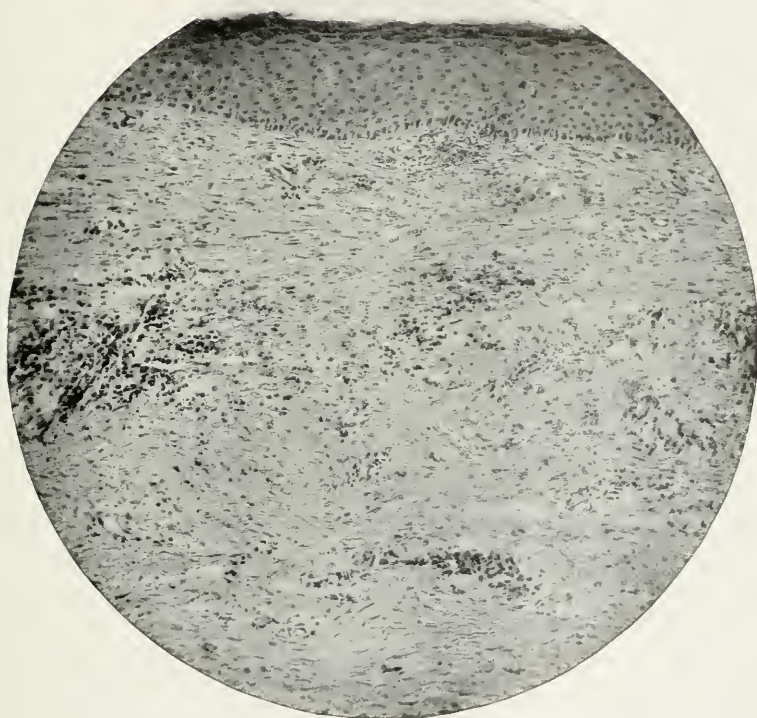


FIG. 6.

DESCRIPTION OF PLATES.

Fig. 1. Spencer $\frac{1}{2}$ inch, Zeiss comp. ocular 4.

Section from edge of the patch showing inflammation in upper corium and club-shaped processes of growing epithelium sharply defined from the normal epidermis and detached from the corium.

Fig. 2. Spencer $\frac{1}{2}$ inch, Zeiss comp. ocular 4.

Section from edge of the patch showing large ovoid and faintly stained prickle cells—presumably from œdema.

Fig. 3. Spencer $\frac{1}{2}$ inch, Zeiss comp. ocular 4.

Section from the center of the patch showing deep invasion of the corium by proliferation of the basal and prickle cell layers.

Fig. 4. Spencer $\frac{1}{2}$ inch, Zeiss comp. ocular 4.

Section from piece removed during X-ray treatment, showing inflammatory reaction in the corium and the absence of epithelial growth.

Fig. 5. Spencer $\frac{1}{2}$ inch, Zeiss comp. ocular 4.

Section after treatment with X-ray, showing mucoid degeneration of the connective tissue about the coil glands, obliteration of the lumen of the ducts from swelling, and degeneration of the lining epithelium.

Fig. 6. Spencer $\frac{1}{2}$ inch, Zeiss comp. ocular 4.

Section after complete disappearance of the lesion from X-ray applications.

AN INSTANCE OF STAPHYLOCOCCIC INFECTION OF THE TONSIL SIMULATING A CHANCRE.

By DOUGLASS W. MONTGOMERY, M.D.

Professor of Diseases of the Skin, University of California.

Read before the German Medical Society, San Francisco, April 4, 1905.

IN the diagnosis of chancre in its usual situations, the danger lies in mistaking lesions that are not chancre for chancre. On the contrary, when chancre occurs in an unusual situation the danger lies in considering it to be some other affection. The following is an instance, however, where the lesion looked so strikingly like a chancre that, although it occurred in a very unusual situation, all the men who saw it were impressed with its resemblance to the primary lesion of syphilis.

The patient, the subject of this paper, first consulted me October 18, 1893, on account of a seborrhœic eczema in the left scrotal thigh fold, which, of course, has nothing to do with the present question. He next came to see me, April 1, 1901, under the following circumstances:

A few days before he had started on a trip in the southern part of the state. On March 30th, on arising in the Pullman in the morning,

he glanced at the reflection of his throat in the mirror and was horrified to see a large yellow lesion on the left tonsil. He went directly to Los Angeles, and saw two of my friends there, men who are used to seeing syphilis. As the patient expressed it, the best thing they "handed out to him" was syphilis, and they freely told him they thought the affection either an epithelioma or syphilitic ulceration. They proposed to cut or burn it out. He said he would return to San Francisco before having anything done. I saw him on the morning of April 1, 1901, and it had then the appearance of a chancre.

There was a circular crateriform ulcer, or what appeared to be an ulcer, the size of a nickel on the left tonsil. The floor of this ulcer had a yellow covering, and its edges were rounded and raised. The left anterior pillar of the fauces was bulged forward, rounded and smooth, and of a deep red color. There was a small extension of the ulcer downwards, but its general outline was circular. On looking into the mouth, the observer looked right straight down on the floor of the ulcer, and it gave the impression of being a chancre. On palpating the sore, it was not found to be very hard, only fairly firm. The ulcer was not painful, but the patient expectorated a good deal and it evidently irritated him. There was one enlarged lymphatic nodule behind the left ramus of the jaw, which was smooth and firm, but not hard. This lymphatic nodule was tender, and there was also some pain and discomfort on the left side of the neck from the ear downwards, which had been present for several days. The left epitrochlear lymphatic nodule was enlarged, but soft. Neither tubercle nor Löffler bacilli were found in either smears or cultures made both by myself and by Dr. Charlotte B. Spring. The only micro-organisms found were staphylococci. There was no fever, and he had good general health.

Such history as was given was corroborative of the view that the lesion was a chancre, or at least syphilitic. The patient had been exposed with two Babylonish women shortly before, and he said that he had been treated in New York in the first part of January by a doctor who was not cleanly in regard to his instruments. Of course, the New York incident was too far removed to permit of thinking the lesion a chancre, but there remained the bare possibility that it might be one of the deep ulcerative processes that sometimes occur in the throat in secondary syphilis. Against this was the fact that there were no concomitant symptoms. All possibilities, however, have to be weighed in the consideration of a doubtful case.

The patient that same day on which he came to me saw two other

physicians, both well versed in this particular class of disease. Each of them on independently examining it, thought that the lesion was a chancre. We all three met that afternoon, and concluded, that although the affection looked so characteristic, that it would be better for the patient to await the appearance of other manifestations before definitely determining on a diagnosis of syphilis, and in the mean time we prescribed a mouth wash of peroxide of hydrogen, and internally we ordered tincture of chloride of iron to be given in thirty-drop doses every three hours.

By April 5th, the fifth day under our observation, the lesion had dwindled to a very small surface, and the enlarged lymphatic nodule at the left angle of the jaw was hardly perceptible.

By April 6th, the lesion had entirely healed.

I did not see the patient again professionally for about four years. On March 3d, 1905, he came to me with an affection in the very same situation as before, and it was then that I got an insight into the cause of the resemblance of the previous lesion to a chancre. It was explained by the peculiar shape of the affected crypt of the tonsil, which was deep and funnel-shaped and had a bulged-out rounded rim. In this funnel-shaped cavity there was a dirty gray mass that simulated exactly the necrotic floor of a chancre, while the raised rim corresponded to the induration surrounding such a sore. The lymphatic nodule behind the left angle of the jaw was a little enlarged, as it had been before. As I concluded it was an attack similar to the one the patient had suffered from four years before, and, therefore, did not belong to my specialty, I turned the case over to Dr. Pischel.

A couple of days afterward it showed almost the identical picture it had exhibited four years before, so there was no doubt of the identity of the two attacks.

Yellow masses taken from this crypt were found on microscopical examination not to be leptothrix masses, which they resembled, but almost a pure culture of micrococci with a few bacilli, and with very few epithelial cells and an occasional pus cell. The cultures showed only staphylococci. It was, therefore, concluded, that the lesion was a staphylococcic infection of a particularly deep, wide-mouthed tonsillar crypt.

In this view of the case, the pathology of the affection was strikingly similar to that of an acne following comedo. This deep tonsillar crypt presumably became filled with one of those cheesy masses so frequently seen in the tonsil, then the cheesy mass became infected with staphylococci, just as the sebaceous plug in a sebaceous gland in

acne does. In this way, the funnel-shaped crypt filled with a pure culture of staphylococci, could be compared with a cornucopia filled with fruits and flowers, although the flora in this case were not so artistic looking as generally pictured, but constituted a dirty greenish-gray mass. Although, clinically, the lesion gave the appearance of an ulcer with high rolled edges and a dirty floor, I do not believe there was any ulceration at any time. Probably the kind of infection was not the determining factor in producing the clinical picture, but rather the shape of the follicle. Other infections, such as streptococci or leptothrix, occurring in the same follicle would possibly, if they had produced a certain amount of reaction, have given rise to the same appearances.

Fournier calls these cases, "lacunar or cavernous amygdalitis," and draws attention to how easily they may be mistaken for a chancre or for an ulcerating gumma.¹ Dr. Mendel, whom Fournier quotes as having written an interesting memoir on this kind of tonsillitis, calls, the affection "ulcerating chancriform amygdalitis," signifying by the name its close mimicry of chancre.

The first good description of chancre of the tonsil was given by Mauriac in 1884. Previous to that both Diday and Rollet had admitted that chancre of the tonsil could occur, but the lesion in this situation was considered so rare, that physicians were afraid to trust themselves in making a diagnosis. In this country, R. W. Taylor called the attention of the profession to this location of the primary lesion.²

In reviewing what has been written of the diagnosis of chancre of the tonsil, we find the following possibilities of error. The lesion is most frequently taken for a simple tonsillitis, or la grippe, or a staphylococcic or a streptococcic sore throat. The next most frequent error is to suppose it to be diphtheria. Krefting, of Christiana, has reported thirty-six cases of chancre of the tonsil, and says that many of the patients were first sent to the diphtheria ward.³

Legendre has reported a case where the lesion resembled an angina diphtheritica, and Brocq mentions an instance where the chancre was diagnosed as an angina gangrenosa.⁴ Chancre of the tonsil has also been mistaken for a mucous patch, or for an epithelioma.

¹ *Les chancres extragenitaux*, p. 170.

² *New York Med. Journal*, May 24, 1884.

³ Extragenital Syphilis infection, *Arch. f. Derm u. S.* B. XXVI., p. 168.

⁴ Contribution au diagnostic du chancre syphilitic de l'Amygdale. Par Paul Legendre. *Arch. Gen. de Medecine*, Jan et March, 1884, also *Ann. de Derm. et de Syph.* S. II., v. VI., p. 112.

P. Merklen has, for instance, reported a case where a chancre of the tonsil in a woman, sixty-four years of age, simulated so closely an epithelioma that several observers so diagnosed it. Subsequently it was thought to be a tertiary lesion and it was only the appearance of the secondaries that led to a correct diagnosis.⁵

Fournier also mentions a very interesting case where the diagnosis was difficult, and where the lesion was at first considered to be an epithelioma. There were pains in the ears, cephalalgia, and adenopathy "en pleiade."⁶

As we have above stated, the present case reversed the usual errors, and was a comparatively insignificant affection, that bore a striking resemblance to a chancre and was thought by well-trained men to be either a chancre or an epithelioma, a mistake that was not the result of ignorance, as the clinical type here represented is very rarely seen, and no one, on first seeing it, could be blamed for not recognizing its true character.

That the patient was not definitely put on antisypilitic treatment when he first consulted us, was the fortunate outcome of conservatism in not wishing to decide the case on the evidence of the primary lesion alone.

THE MULBERRY-COLORED SPOTS ON THE SKIN OF THE LOWER SPINE OF JAPANESE AND OTHER DARK RACES: A SIGN OF NEGRO DESCENT.

By ALBERT S. ASHMEAD, M.D., New York.

Late Foreign Medical Director Tokio Hospital, Japan.

ALL observers have noted the occurrence of violet-colored spots in the skin of the buttocks, sacrum or shoulders of children newly born in Japan. The common people believe that if the spot is removed by ligature the child will not become a leper. *Obisans* therefore double-thread a needle and transfix it, shortly after birth, and strangulate it by two segments. Thus the child's blood is supposed to be purified, so far as leprosy is concerned. The birth of a child with curly hair, like that of the *Eta*, the outcast negroid blood of the empire is, to them, the sure sign that an ancestor has been negro. Ninety-five per cent. of all Japanese have straight black hair; there

⁵ Paul Legendre. *Vide Supra*.

⁶ *Ann. de Derm. et de Syph.* S. II., v. V., p. 57.

never was known a blue-eyed Japanese; all have the iris black. The occurrence of blonde hair in Japanese is evidence to warrant the social ostracism of the individual. Why, no one is able to explain. Evidently then, the off-color of hair, eyes or skin is traditionally suspicious to the proletariat. That there has been negro blood in the Japanese ancestral races is proved by the frequent occurrence of black pigment-spots on the sclerotica, the flattened root of nose of the common people, and by the fact that the five great daimio families, to one of which every Mikado has belonged, are of white Indonesian blood. This ruling white blood of Japan has been maintained in its imperfect measure of purity by a social system of concubinage. The Mikado of to-day is allowed one high-class wife and twelve concubines. The present Emperor's wife is of the Fujiwara family. The other of these great white families are the Taira, Minamoto, Ashigawa, and Kuge. These noble princesses are nearly sterile, by too close intermarriage, and the concubines, mostly of continuing white Indonesian type of feminine beauty, give birth to the possible new Mikados. The present prince imperial has for mother a Mikado's concubine. Thus, there must always be more or less incestuousness in the ancestry of every Mikado, for only in women of white Indonesian blood could the peculiar type of feminine beauty be found that would naturally attract the masculine of the race and preserve the type. Sterility of the pure type is a fact, recognized by anthropologists. The lower class blood of this people has more or less contaminated those higher bred families, and it is this blacker blood of the nation which has kept alive the upper current of society. Crossing of races is necessary for the preservation of a people. The lower we descend through the various strata of the Japanese race, the blacker they appear, until we reach the despised outcast, the remains of the full negro, the curly-headed Negritoid Eta.

Pithecoïd man of East Asia, like the pithecoïd of Central Africa, may have been descended from an ape. Many diseases have come to man in both situations by too close associations with monkeys. I may mention only one undoubtedly originating from that source, ankylostomiasis, the hook-worm disease as it is wrongly called, or uncinariasis (the former term is much better). In ages of time, it has produced Oriental lethargy, now accepted as typical of mankind there. Beri-beri, too, is a disease of monkeys. In Java, too, there has been found what was supposed to be the true missing link, the ape-man. Many anthropologists of eminence have expressed the belief that in East Asia this strange animal died out, without chang-

ing its type, from monkey to man, or that it developed a new type, which we fail to recognize to-day in any East Asiatic race. The pilings of the houses in the Malayan archipelago, copied in all Japanese architecture, are merely survival of necessities, which compelled Japanese ancestors of some kind to dwell in trees. These same necessities existed in Africa; in both places they were simian. The black Hamites of Mesopotamia and the Caspian Sea are supposed to have migrated, slowly through the long past centuries, down to Manchuria and Corea, and to have taken refuge later in the islands of the Asiatic Pacific ocean, of which the Malayan archipelago and South Sea islands, New Caledonia, etc., are the main ones. In all these situations we find evidences of negro blood and negro-tribal tattooings. Spotting of the skin there had most important significance, as much as would the maculation of leprosy.

The mulberry-colored spot on the skin of the lower spine of newborn Japanese and other dark races has attracted the attention of scientists for a great many years. The newly born of the races of color in East Asia, of China and Japan, of Africa, of Portuguese and Spanish-America, wherever the inhabitants have had opportunity to mix the white and black together, present on the skin of the lower spine one or more of these spots, irregular in size and outline, and always somewhat darker than the rest of the skin of the body, whether the individual is lighter or darker in type. They are blue in the Japanese, bluish-gray in other Mongolian tribes, scarcely unlike the rest of the skin in certain Indians and mulattoes, and even in some Asiatics, as observed by Matignon in the Chinese of Peking, and by Chemin in the Annamites of Cochin China. Everywhere the spotting appears in intra-uterine life, or after childbirth, and disappears only when the individual is one or two years old. Exceptionally it remains throughout life. Sex has nothing to do with it. This violet-like spot is due to a special kind of very characteristic pigment cells.

The Japanese Adachi has studied this pigmentation of skin both in man and monkeys under the auspices of the anatomist Schwalbe, of Strasburg. (Pigmentation of the Skin of Man and Monkeys. *Revista de Morpholog. et Anthropol.* vi., 1903. Preliminary Communication, Anatomical Indications, xxi. *Review of the Soc. Anthropol., of Tokio*, 1901.)

The result of this research is that the pigment forms itself in the epithelium and corium, and contradicts the migratory theory which has been heretofore made and accepted. The pigment is encountered in the layers of skin in equal proportion. The pigment in the corium

shows itself in two categories: one of little cells, in the upper part; the other larger, in the deeper parts, which appear to be similar to the pigment cells of the choroid, black membrane of the eye. This last, like the photographic membrane of the eye, is that which *translutes* itself in the form of violet-spot, when it has sufficient number of cells. When the cells are fewer, a defective spot is shown. Adachi (Adachi and Fujisawa: *The Mongolian Infantile Spot in the European.—Review of Morphology and Anatomy*, vi., 1903) found them present ten times in twenty-four autopsies of new-born Europeans up to the age of two years and three months. But he failed to say whether these children were of mixed negro blood or not. The bluish color of the spot in Japanese is due to the same law of optics which makes appear as blue a tattooing made with pure carbon.

The mulberry-colored spot was known to the ancient physicians and writers of Japan. But it was never fully studied until 1885. Then the German physician, Baelz, whose wife is a Japanese and whose children are half-breeds (Euro-Japanese), who was director of a clinic of Tokio, described it under the title, "Somatic Characters of the Japanese." (Commun. to the *German Society of Natural Sciences and Ethnology of the Far East*, iv., 32. May, 1885.) He also referred to it in the following works: "On the Different Races in the Far Orient, Especially of Japan," *Ibid.* viii., 1900; "The Asiatics of Oriental Asia," Stuttgart, 1901; "Human Races of the Far East, Especially of Japan," *Anthrop. Soc. of Berlin*, 1901; "Anthropological Studies in Oriental Asia," *Review of Correspondence of the German Anthropological Society*, 1901; "Contribution to the Question of Ethnic Parentage Between Mongolians and Americans," *Transactions Anthrop. Soc. of Berlin*, 1901; "Again the Blue Mongolian Spots," *Central Review of Anthropology*, 1902. Special articles were published also by Denniker and Wardle—*Las Manchas Congenitas en la region Sacro-lumbar Consideradas Como Caracteres de raza*; *Boletines y Memorias de la Sociedad Anthropologica de Paris*, 1901, et, *Pigmentacion Congenita transitoria en la region Sacro-Lumbar*, *American Anthropologist*, 1902. The following facts are drawn from Adachi: In Japan, Soha Hatano, 1641 to 1697, and his sons rubbed the violet spots with a paste to purify the blood. Siguen Kagawa (the famous obstetrician), 1765, believed that the "obi," or belt of the women of his country, by its pressure decomposed the blood of the child, which settled in the dependent portion of the unborn body. Black or blue on the skin to him meant bruising. Ransai Kagawa (a great obstetrician), a hundred years ago said that the spot was due

to contact with the placenta. Shinsei Omaki, 1826, said that the mother's blood was decomposed, because Chinese and Japanese women like their aliments very hot. He thought that the heat descended through the body of the mother, and that the spot appeared in the parts of her child lowest downward; in fact, the spotting of the child's parts meant that they had been burned. Shinsai, 1846, blamed coitus performed during pregnancy as the cause; that the heat of the sperm decomposed the blood of the infant in the respective parts; that contact with the air made the blood dark-blue. He thought evidently that coitus let the air penetrate to the body of the child. None of these authors knew anything of anatomy, and all their scientific opinions were as faulty as their belief that the buttocks of the child in utero was the most dependent part. Hisao Yamada, 1851, and Ritsuen Asada, 1870, repeated what Ransai Kagawa, their greatest obstetrician, had said. In a novel by one Bakin, entitled "Hakkenden," 1814-1841, are figured men and a dog¹ adorned with the mulberry colored spot.

The Japanese common people explain the spot as the consequence of coitus performed during pregnancy, or as produced by the pinching of the Buddhist god, or man-midwife (no women were midwives of Japan); Kami-sama. Doctors' wives, are still addressed as "O Kami-Sama."

European authors who have studied this subject are Baelz, Grimm, Kohlbrugge, and Tenkate. Intelligent Japanese authors are Ikeda, Irisawa, Sekiba, Haga, Okabe, Tsuboi (anthropologist), Oka, Koganei (archæologist), Nakagawa (these Matignon quotes in his *Congenital Stigmata and Changes in the Chinese*. *Anthropological Society of Paris*, 1896, *et Clinical Archives*, 1896), and the before named Adachi and Fujisawa, from whom I have quoted.

Among Euro-Japanese half-breeds, the spot in the majority of

¹The Japanese race is notoriously a hybrid race: Mongolian, Malay and Negritoid or Papuan. The original inhabitants of the Archipelago were the Ainos, a perfectly pure white race. "Ainu" in Japanese means dog. And the Ainos were always refused intercourse because of their extreme hairiness, the Japanese being extremely glabrous. Thus the name Ainos, given to the indigenes by the Japanese, meant "dogs."

An Aino hybridity never occurred. All Japanese can use their big toes as thumbs and use the nose to play a flute with it, as the Malay. The races which did compose the Japanese race, with whom the original Hamite amalgamated, were ages behind in evolution of the white human species, of which the gentle Aino, call him hairy dog if you will, was autochthon in Japan, when the whitest Indonesian emperor, Jimmu Tenno, 660 B.C., came there. A pity it is, for the fusioning of the Japanese negro, with white human species, that the Japanese looked upon them as dogs, and did not absorb them.

cases is more or less well recognizable. In a case where the spot was wanting, the father was a blond (red-head).

Those children who have inherited the characteristics of the father and mother equally have it slightly indicated. Those who most resemble the Japanese type show it very marked. These observations are confirmed by Tenkate (Pigmented Spots of the New-Born, *Globus*, 81, 1902).

According to Grimm (Contributions to the Study of Pigmentation, *Dermatological Review*, 2, 4, 1895), in cases of this mixture the spot is usually more pale and less extensive, and it disappears sooner. This same author has found it among Chinese-Japanese half-breeds. The Ainos, a paleo-Asiatic people, not of the Mongolian stock at all, but who are rather related with Caucasians, who live in the Islands Yezzo, Saghalien, and Liu-Kiu (Tomoyose: Popular Superstitions of the Inhabitants of the Liu-Kiu, *Anthropological Society of Tokio*, xiv., No. 161, 1899), do not have the characteristic spot of the Japanese negroids (Koganei, Contributions to the Physical Anthropology of the Aino II.: Study on His Life. Communications of the Faculty of Medicine of the Japanese Imperial University II., 1894; Grimm: Contributions to the Study of Pigmentation, *Dermatological Review* II., 1895), or they have in a few cases of half-breeds (Aino-Japanese), like Euro-Japanese.

According to Sekiba, quoted by Adachi (Sekiba: On the Bluish Black Spots. *Review of the Anthropol. Soc. of Tokio*, III., No. 22, 1887), the spot appears in ten per cent of Ainos (of mixed blood). In half-breeds (Aino-Japanese) Grimm has observed it. In Coreans Baelz and Sekiba have found it. In China it was noticed by Kononchi (Chemin: Data on the Congenital Spots of the Sacro-Lumbar Region in Annamites, *Bull. Soc. Anthropol. de Paris*, 1899, et Congenital Spots of the Sacro-Lumbar Region, *Monthly Review of the Anthropological School of Paris*, 1899).

Matignon also has observed it. (Superstitions, Crime and Wretchedness in China. Lyons-Paris, 1899). According to this last author, children under two and a half years have it in the ratio of 97 or 98 per cent. But after the fourth year it almost disappears; only ten per cent of that age have it. In children past five years it is very rarely encountered. Birkner (The Pigmentation of the Skin of Man and the Bluish Spots Called "Mongolian," *Review of Correspondence of the German Anthropol Soc.*, 1904), encountered the typical cells in cadavers of recent born Chinese.

The published observations on half-breeds refer to Chino-Japan-

ese (Grimm); Chino-Annamites (Minh-Luong); Chino-Siamese (Chemin); Chino-Malays (Kohlbrugge, Deniker). Chemin has observed the mulberry-colored spot in Annamites of Cochin-China and Tonkin, but doubts whether Siamese children of Bang-kok who had it were pure or half-breed. Half-breeds among Annamites and Chinese, and among Siamese and Chinese all present it, according to Chemin. Malays present it, according to Kohlbrugge and Baelz. (Kohlbrugge: *Anthropological Observations Made in the Malay Archipelago. Transactions Anthropol. Soc. of Berlin*, 1900.) Indonesians (brown) also have it. (Kohlbrugge and Riedel.) (Riedel: *On the Mongoloid Spots of Infants. Trans. Soc. Anthropol. of Berlin*, 1901.) In Javanese it is found, too. (Deniker, Kuhlbrugge, Tenkate: *The Pigmented Spots of the Newborn, Globus*, 1902.) This is corroborated also by Baumgarten, quoted by Tenkate.

Riedel says it is also present in the Celebes and other Indonesian islands. Half-breed Euro-Javanese have it in ninety per cent. of infants. According to "R. M." (Data on the Philippine Islands. *Bulletin of the Geographical Society of Paris*, 1896), in the Philippine islands, the mulberry-colored spot is encountered in Negritoes of different Indonesian tribes, Igorrotes, etc. Riedel found it in Papua.

In Samoa the spot is known under the name "O-le-ila," and appreciated as characteristic of Samoan origin. (Von Bulow: "The Congenital Spots of the Samoans," *Globus*, 78, 1900.) Half-blood Samoans have it according to the racial purity of the father or mother. In Hawaii (Okabe: Existence of the dark spots is not peculiar to the Japanese race. *Review of the Anthropol. Soc. of Tokio*, V., No. 54, 1890), it has the name "he-ila," and the common people believe it is produced by the mother during pregnancy, eating the fruit of a plant called "popolo," which when crushed is of dark violet color.

We have but few observations on it in America. The oldest records are those of Saabaye, 1816. (Saabaye: Fragments of a book of data relating to Greenland during the years 1770 and 1778. Odeuse, 1816. German translation, Hamburg, 1817. English translation, London, 1817), and Eschricht, 1849, on the Esquimaux of Greenland. (Eschricht: *Zoological Anatomico-physiological Investigations on the Septentrional (north bound) Whales. Leipzig*, 1849. Tom., I.)

These observations are confirmed by Hansen, the anthropologist, in the Esquimaux of both east and west coasts of Greenland. (Hansen: "Contribution to the Anthropology of Greenland," 1886; and Communications on East Greenland, Copenhagen, 1888; and Contribution to the Anthropology of West Greenland, 1893.) Hansen says: "The

mulberry spot is very various in form and size, being often double, with inexact outlines. The color is very feeble, and often barely recognizable."

Holm ("Ethnological Sketch. Communications on Greenland," X., Copenhagen, 1887) announced the presence of the spot in the east part of Greenland. Bartels ("The So-Called 'Mongolian' Spots on Infants of Esquimaux," *Ethnologic Review*, 1903) received letters regarding it from East Greenland and also from Esquimaux of Alaska. In half-breed European-Esquimaux, Hansen says he has encountered it. Among Indians of North Vancouver, British Columbia, there are observations made by Baelz as well as by Tenkate (second-hand). In the Mayas of Central America, Starr's (Data on the Ethnography of Western Mexico, Part II., 1902) facts are corroborated by Herman (Aparecimiento de la Mancha Mongolica. *Revista de Ethnologia*, 1904). He cites A. F. Chamberlain (Pigmentary Spots, *American Anthropologist*, 1902,) and Starr (Sacral Spots of Mayan Indians, *Science, New Series*, xvii., 1903).

In Central America, according to these authorities, the spot is called "Uits," "pan," and it is an insult to speak of it. It disappears in the tenth month. It is bluish-reddish (in these red men), and is remarkable by its littleness. Mayan half-breed infants do not have it (red men and Spanish white). The mulberry colored spot is very well known in Negroid Brazil. Among individuals of mixed Indian blood (black and red) it is called "genipapo" from its resemblance in color (bluish-gray) to an indigenous fruit of Brazil, named genipapo (an Indian word adopted into Portuguese).

"Tem genipapo" means the same as "he is of colored (negro) race." Brazilians say that the spot has a great tendency to preserve itself through the generations by inheritance, and that "Indian blood" is never lost when entering a new. This is the explanation made by those in whose family it occurs. It is rather like the Minorcan blood of the Dr. Trumbull negroes of St. Augustine, Florida, among whom this same spot shows itself even to-day. Yet no one knows them to be black, except that a dark child is sometimes born and strangled by the beautiful women of that race descended from the old Negress of Spain, whom Dr. Trumbull married and brought to America with him. Dr. Lehmann-Nitsche (Mancha Morada de los recién Nacidos, *La Semana Medica*, 1904) has known of cases of the spot among very swarthy individuals of Europe. He believes that the religious Brazilians are wrong in their accusation that it is the "Seal of Cain." (Cain's seal was on the forehead. Besides, a tribal tattooing in all probability was Cain's seal, as every anthropologist might explain.)

Lehmann-Nitsche's exact observations in the Argentine Republic relate to individuals of pure Araucanian Indian blood, who have on their lower spine, extending below the middle of the buttocks, an irregular large spot and sometimes an accessory spot. The color is hardly different from that of the surrounding skin, barely surpassing that of China tint. "The spot," says Lehmann-Nitsche, "in general is little distinguished by its color, especially in individuals of very young age, for the blood in so early life *translutes* rays of light, making it very difficult to determine exactly the color of the skin," or when perhaps the skin has not yet reached the darkest degree of its color. We know the light (violet) appearance at birth of even the full black parent's child. A mulatto or a quadroon's child will be darkest at birth, and gradually becomes whiter. The same applies to individuals somewhat advanced when the spot is already disappearing.

From time to time, during the continuance of the coloring, the outlines may appear and disappear without losing to us the power of distinguishing them from the skin round about. In these Indians the color shows clear violet, a maroon a little different from the yellowish-maroon of the body. In no case was there a blue or bluish color as in Japanese. The color of the spot was not of the same intensity in every part. In one Araucanian Indian infant of two years, the middle of the coccygeal region and top of the buttocks were darker than the other parts of the spot. In a male of eight months the lower part of the spot, shaped like a peach above the anus, was darker, while higher up it had the generalized color, paler than this spot. Araucanian mothers pay little attention to its occurrence; they do not know what it is, and apply no value to it. Brinton, in his "American Race," page 322, believes the ancestors of these Araucanians were following the course of migration which was the reverse of from Pacific to Pampas (Northern Chile to the Pampean plains of Patagonia) (early Pleistocene). These were occupied by some linguistic stock, the same as is found in Chile, the most prominent of which is Araucanian. The ancestors of Araucanians would not willingly cross the desert of Alacama. There are evidences of different people occupying Chile before them.

De Barapsky remarks that Araucanians first crossed the Andes into the Pampas three hundred years ago. (La Lengua Araucania, Santiago de Chile, 1888.) But Brinton says that the tribes they found there were of their own stock. "Aucani" is the derivation of the word, and means "wild," "indomitable." Some have derived the word from the Ketchua word, "Aucca" or "enemy." But Brinton is

convinced by the examples of Federico Barbara (*Manuel de la Lengua Pampa*, Buenos Aires, 1879) that the same root belongs to Araucanian. The Araucanians living on the eastern slopes of the Andes are taller and stronger than in Chile, and claim descent from Pampean tribes. They speak a language not distinct from the Pampeans proper. They differ physically from Ketchuans of Peru and Tapuyas of Brazil. They have high brachycephalic skulls and clear copper color of skin. The languages of La Plata Basin and the Pampas show that Araucanian is wholly different from the other tribes: Guachis, Guatos, Carajas (see *Expedition*, Tome V, Appendix Castelnau and Febres *Diccionarii*). Observations on the Mulberry-colored spot, in Africa itself, are few. Adachi found it mentioned in books of various authors: Pruner Bey, Schweinfurth, and Von Helmbold.

The spot was indicated as clear gray, or slate color, in certain regions of newly born negroes. But the exact location of these colorations was not stated. It appears, however, as if these all referred to our mulberry-colored spot, for Chemin makes such announcement from Madagascar. Among Africans in Brazil it is known as Genipapo in little mulattoes, and all have noted that what has been said of half-breeds refers also to the infants of Moorish blood. This fact is confirmed by Brazilians. Wherever you find black blood contaminating white there you will find the mulberry spot of Japan.

In La Plata, Dr. Lehmann-Nitsche has examined six little half-breed negroes, from half a year to two years old. The spot on them was as large as the palm of one's hand; its color was generally violet gray (slate color rather than blue), and hardly distinguishable from the color of the skin. In children of older age the spot had disappeared. The mothers knew it very well. It did not appear that its outlines were any more difficult to trace in these negroes than in the little ones of Araucanian Indians.

In the coast provinces of Argentina, Catamarca, for instance, where there are still many descendants of half-blood negroes, the spot is known by the name *Mancha Morada*, or merely "spot," and serves, among the people, as a sign of African blood. The term appears very significant.

On the littoral, the people know neither the spot nor word.

It appears only in the regions of the body as mentioned, and persists a long time. Sometimes it remains throughout life, in these half-bloods. It is enough, for example, merely to say, "He has a Spot," or "He has the mulberry-colored spot," or "He has the 'violet-

tail," or "He has the Spot, on the tail," etc., to classify a given person as mulatto, or to vex him.

The mulberry-colored spot has been observed but little in Europe, in spite of what Adachi would have us believe. According to this Japanese author, the typical cells are not rare in Europeans, ten cases among twenty-four cadavers; and they even may be encountered in adults, so keen is he to show that they are not an inheritance of race. But they are found only a few times, if at all, in necessary quantity to transmit light.

According to Tsuboi, Professor of Anthropology, University of Tokio ("The Dark Spots on the body of infants are not peculiar to Japanese." *Review of Soc. Anthropol. of Tokio*, Vi., 1891): "The spot exists in embryonic life of the Europeans, but has already fully disappeared at the time of parturition!" What nonsense it is thus to attempt to controvert the real meaning of the Japanese Spots, present in all the other mixed negro races of the earth! A pure individual of Caucasian (white) race could no more have the violet spot of the Hamitic Japanese than could a pure Aino, who is of purest *white* Siberian blood.

Baumgarten says that the spot has been found among Europeans but a few times.

Fujisawa (Japanese), after having observed fifty infants in a clinic of Munich (Bavaria), among dark Germans, found a child of seven weeks with two mulberry-colored spots. According to the declaration of the child's grandfather, one appeared a week after birth, on the right buttock, the other a week later, in the dorsal region; both were shaped like walnuts. At the end of three months they disappeared. These surely were not embryonic!

From all the facts it may be concluded that the mulberry-colored spot found in all colored races is not characteristic of the Mongolian race, nor of Indonesian nor Polynesian races. It is encountered but a few times in the race of little pigmentation, the white race, and in such instances it may be due to contamination with the black race.

It is a normal characteristic of human skin, not pathological at all, yet enigmatical in its appearance at certain times of life and in certain situations by predilection.

Dr. Lehmann-Nitsche thinks it more acceptable to believe that it treats of a rudimentary formation (monkey's tail). For myself, I believe that there is furnished to the offspring in utero, by the negro or negroid parent, too much pigment in the blood which must circulate through the placenta and the child during gestation. The excess

settles in the part least developed, of least resistance in development or undevelopment, where another member once had been formed in distant ancestry; it is therefore of rudimentary growth. The child of such parentage cannot get rid of its excess before birth, in the shape of meconium or otherwise.

The tendency in colored races is to the skin outwards, and not inwards. Thus metabolism is insufficient to rid the system of what was necessary to human creation thousands of years before the white man appeared. The Hamite and the monkey are hundreds of centuries closer to each other than the white races are to the black, whose evolution from Darwinian ancestry, or apes, has not yet wholly completed itself.

According to Adachi's studies, monkeys do not have generally these very typical pigment-cells in the sites of predilection of the human body, but more evenly distributed over the whole surface of their bodies and without any systematic relation of position. It is reasonable, therefore, to presume that these pigmentary cells belong rather to the ape than to man, and that when we find them present at birth in dark races it implies a Simian inheritance which perhaps later on in his evolution he has completely lost.

EDITORIAL.

PRIMARY LESION OF THE TONSIL.

The extra-genital primary lesion almost always presents difficulties in diagnosis to the trained dermatologist, ever on the alert to the suspicion of syphilis, and becomes especially grave for the patient and his or her surroundings when the lesion is upon the tonsil where the practitioner either ignores the possibility of syphilis or where, as in the case described by Dr. D. W. Montgomery in his paper in this issue, a benign staphylococcic infection of the tonsil simulated a chancre. That among extra-genital lesions an initial lesion of the tonsil is not rare is shown by the statistics of Neumann¹ who reports ten cases of chancre of the tonsil out of a total of 207 cases of extra-genital in-

¹ I. Neumann. Der extragenitale Primäraffekte und das venerische Geschwür in ihrer klinischen und volkshygienischen Bedeutung. *Woch. Oestr. Sanitätsw.*, 1902, No. 3-4.

fection. Neumann's observations extended over the period 1880 to 1901, and during this time 4634 cases of primary lesions were treated.

The writer has observed two cases of chancre of the tonsil in hospital and dispensary practice. One case, a young girl, had been operated upon two weeks before and the satellite group of enlarged cervical glands had been removed under the wrong diagnosis of tubercular glands of the neck.

The other case was a man convalescent from typhoid fever in a hospital who presented a chancre of the left tonsil, general adenopathy and a maculo-papular syphilide. Methods of infection in the two cases were not ascertainable.

Vincent's angina is another condition which may cause doubt in diagnosis, and it must be remembered that the finding of the fusiform bacilli and spirochaetae of Vincent does not exclude the presence of syphilis, as we have observed in three cases, two women and one man, all of whom presented thick, dark-brown patches on the tonsils, in which a microscopical examination revealed the presence of Vincent's bacilli and spirochaetae, while other well-marked signs of syphilis were present.

Diphtheria, of course, is to be considered in the differential diagnosis, and while cultures would furnish positive evidence, the co-existence of syphilis must be kept in mind also, as the writer has had under treatment a physician who became inoculated upon the index finger with syphilis while inserting an intubation tube into the larynx of a child suffering with both diseases.

G. Nobl,² after calling attention to the great resemblance between syphilitic lesions of the mucous membranes and mucous processes of other etiology, such as catarrhal angina, follicular inflammation, ulcerative changes, acute streptococcic infections, mercurialization, ulcero-membranous affections, Vincent's angina, aphthous patches, etc., records two cases of primary lesions of the tonsils in which, under a wrong diagnosis of tonsillar abscesses, both cases had been operated upon by crucial incisions with resulting necrosis and suppurative breaking down of the tonsils, and also of the satellite glands, with unusually severe specific exanthemata and other symptoms. This incision of primary lesions under a wrong diagnosis, he maintains, opens the way for severe mixed infections to complicate the prognosis and all haste in advising operative interference in a suspicious lesion should be guarded against.

² G. Nobl. Fehldiagnosen extragenitaler Primäraffekte und ihre folgen. *Wein. Med. Presse.* No. 17 u. 18, 1904.

SOCIETY TRANSACTIONS.
NEW YORK DERMATOLOGICAL SOCIETY.

331ST REGULAR MEETING, FEBRUARY 28TH, 1905.

Dr. GEORGE H. FOX, President.

Psoriasis of Palms and Tongue. Presented by Dr. ROBINSON.

This patient was shown at the January meeting (*Jour. Cut. Dis.*, p. 168, 1905) and was again presented to show the effect of treatment. The tongue is now perfectly clear of lesions, presenting only the fissured markings, which are congenital. The palms are smooth and free of all manifestations of the disease. The treatment used was resorcin and salicylic acid locally and alkalies and arsenic internally and a non-uric acid producing diet.

Dr. LUSTGARTEN had seen the same spots in cases of fissured tongue without psoriasis and was not ready to admit that the tongue lesions were psoriatic.

Dr. ALLEN had never seen psoriasis of the tongue and had considered the condition as an extremely rare one, if it existed at all. The result of treatment in this case was all that could be desired.

Dr. ROBINSON, in closing, said that he had removed a piece of tissue from the tongue and would report later on the changes observed.

For Diagnosis, A Case. Presented by Dr. SHERWELL.

The patient was a young lady of Italian parentage, native of the United States, æt. twenty-one, telephone operator. She was presented before the Society on account of a pigmented abnormality of the skin, irregularly quadrilateral in form, extending from the free edge of the lower eyelid on the right side over the zygomatic region to a point on a line with the lower part of the ala of the nose, and about two fingers broad. There seemed to be a slight trace of a similar affection now commencing on the other cheek. Dr. S. was not quite convinced of its purely pigmented character and questioned the possibility of its being a lupus erythematosus of an unusual type. The trouble, according to the mother's description, began to show at about the seventh year.

Dr. JACKSON considered the case to be a pigmentary nævus, nearly all the members present concurring in this diagnosis.

Dr. SHERWELL, in closing, thought the lividity of the patch and the evident swelling on the outer cheek gave reason to consider the diagnosis of lupus erythematosus, although personally he coincided with what was the evident consensus of opinion expressed.

Lupus Erythematosus Cured by the High Frequency Spark (Strebel). Presented by Dr. LUSTGARTEN.

The case was a young man with typical butterfly patches of lupus erythematosus on both cheeks, which had been subjected to a number of treatments by the high frequency spark from a pointed glass electrode, after the method of Strebel. The case was shown on account of the

cosmetic result, the scarring being slight and superficial. A great many forms of treatment of this condition had been advocated as producing a great improvement, but in this case he felt justified in pronouncing a cure.

Dr. JACKSON said that for superficial patches of lupus erythematosus the high frequency spark was one of the best means of treatment, but in the patches with deep involvement he had found it absolutely useless. In one case which he had treated recently, the superficial patches were nearly well when the patient contracted pneumonia. When she recovered from her pneumonia the lupus was entirely well.

Dr. ALLEN admitted that it was proper to speak of the high frequency sparking used in this way as the Strebel method, still the method had been used here in America before Strebel's article. Dr. Allen said that he had successfully used short sparks long before the Strebel article had been called to his attention. He thought the method was by far the best hitherto applied in the treatment of lupus erythematosus and had so stated, he believed, in his book. Patients preferred it as causing less pain and annoyance than some other methods. He had recently presented a case of extensive epithelioma treated exclusively by this method before the Lenox Medical Society in which a very good result had been obtained.

Dr. JACKSON asked if Dr. Allen had used on the patient he spoke of the new hand lamp in which the X-ray and the high frequency spark were combined.

Dr. SHERWELL thought the imagination played some part in the patient's mind after the exhibition of some of these interesting agents, as, for instance, the high frequency treatment.

Dr. ROBINSON thought the high frequency spark used in this manner was the best agent at our disposal for this disease.

Dr. LUSTGARTEN, in closing, said the method of Strebel was very useful in a number of superficial pathological processes of the skin, such as warts, multiple flat warts, *nævi*, etc. With a carefully measured spark gap, not over 3 mm., and a low amperage very little pain was caused by the treatment.

A Case of Psoriasis of the Hands, Showing the Effects of Treatment. Presented by Dr. FORDYCE.

The patient was a woman shown before a previous meeting of the Society with a psoriasis limited to the palmar and dorsal surfaces of both hands. The histological changes of psoriasis were shown in sections of skin removed by the cutaneous punch. She was again brought before the Society to show the effect of treatment. At present the hands are supple and entirely free of lesions. The affection yielded to tar after the failure of chrysarobin to influence the lesions.

A Case of Beginning Leukoplakia (or Lichen Planus) of the Tongue. Presented by Dr. MEWBORN.

The patient is a cigar-maker by trade, native of Germany, aged sixty-six years, of good history. He smokes five or six cigars a day and has done so for thirty or forty years. He has never had any subjective symptoms, in fact, was unaware of the existence of the tongue lesions until a casual examination of mouth revealed the present condition. Almost the entire dorsal surface of the tongue presents a pavement-like aggregation of nacreous, shiny patches, which are not perceptibly thickened,

but rather the appearance of thickened pavement epithelium. Innumerable fine fissures divide these patches into various shaped areas. On the left buccal mucous membrane, near the corner of the mouth, are two shiny whitish patches. While the case most strongly resembles a beginning leukoplakia, nevertheless, in the shiny, nacreous color, polygonal outlines of the lesions it much resembles a lichen planus of the mucous membranes.

Dr. KLOTZ considered the case a mild degree of leukoplakia.

Dr. LUSTGARTEN, while considering the case to be leukoplakia of the tongue, admitted the difficulty in the differential diagnosis at times between that condition and lichen planus. But since the latter disease was very rare the probabilities were rather in favor of leukoplakia of specific origin. Of the two varieties of leukoplakia the scar-like, and the inflammatory with local sensations of pain, he had found in the latter type of cases gratifying results from the use of bichloride of mercury injections. These cases were very obstinate, and mercury, if administered, seemed only active when given hypodermically.

Dr. FORDYCE thought the lesions resembled more a leukoplakia than a lichen planus. In the absence of skin lesions the recognition of lichen planus on mucous surfaces was difficult.

Dr. ALLEN made the diagnosis of leukoplakia, but did not agree that it was a frequent affection. While at the Good Samaritan Dispensary he had examined over 4,000 tongues for this disease and had only found seven cases. Schwimmer gave 20 in 5,000 as the proportion in his practice. Dr. A. said that out of twenty cases personally treated, ten had given a decided history of syphilis. He thought that the chances for improvement were better in the specific cases. The man shown by him at the last meeting with carcinoma following leukoplakia, showed an improvement in the leukoplakia under the injection and inunction of mercury. One heaped-up white patch had shed leaving a smooth surface through which the pink tissue showed.

A Case of Lingua Nigra. Presented by Dr. LUSTGARTEN for Dr. ALBERT KOHN.

The patient was a man aged sixty-five years, who presented a dark brown, almost black furry condition of the tongue, which had existed for two or three weeks. A deep fissure ran down the center of the tongue separating the villiform masses, which seemed to project above the normal surface from a quarter to a half of an inch. A microscopical examination revealed pigmented epithelium, and the ordinary microphytes of the mouth, but no special fungus.

Dr. ALLEN concurred in the diagnosis of lingua nigra and said that although it was usually considered to be caused by food or dyes he did not so regard it in the true affection of which this seemed an example. He referred to a case of syphilis under his care with black hair-like elongation of the papillæ.

Dr. SHERWELL asked if the *aspergillus nigra* had been found in these cases of black tongue. This mould had been found in the auditory canal at its transition into a mucous surface and he saw no reason why it might not grow on the tongue.

A Case for Diagnosis. Presented by Dr. DADE.

The patient, an idiot boy twelve years old, from Dr. Dade's service at

Randall's Island Hospital, presents on the forehead, cheeks and chin, more pronounced on the naso-labial folds, a score of pinhead to peanut kernel sized lesions. They are firm, project from the surface and vary in color from pink to red. Lesions have been present from infancy and are increasing. Associated lesions are small fibromata on the back of the neck. Two fibroma molluscum are present on the back of head and one on the tongue.

Dr. FORDYCE said the case was almost the exact clinical picture of the cases of adenoma sebaceum described by Pringle and others. He recalled the histological picture in these cases as a hypertrophy of the sebaceous glands, increased production of connective tissue, and blood vessel changes. He referred to Pringle's investigation of the subject and spoke of the cases shown at the Berlin Congress, which were almost the counterpart of this case.

Dr. LUSTGARTEN made the diagnosis of adenoma sebaceum and thought the interesting feature was the question of etiology. His impression was that the cases shown at London were either idiots or very defective mentally. He was of the opinion that there was in these cases a deficiency of some one of the internal secretions, possibly of the thyroid gland. In this case the thyroid glands were not perceptible. He would suggest thyroid therapy. He thought all of these cases were below par mentally or physically, as in molluscum fibrosum. In reply to a question as to the dose of thyroid extract to be given, he suggested starting with one half to a grain t. i. d. and eventually increase the dose.

Dr. ALLEN did not agree with the statement that these patients were always mental defectives. He saw two cases at Berlin who were healthy, well developed girls.

Dr. DADE expected to make a biopsy and would report later on his findings.

A. D. MEWBORN, *Secretary.*

BOSTON DERMATOLOGICAL SOCIETY.

FEBRUARY MEETING.

Dr. ABNER POST in the Chair.

Two Cases of Ringworm. Presented by Dr. F. S. BURNS.

The first patient was a boy of ten, who, two weeks ago, presented on his scalp numerous foci of raised, grouped pustules, situated in the hair follicles, forming typical kerion masses. To-night, as the result of treatment, the lesions had lost their pustular elements and formed irregular patches of alopecia, the skin being red, boggy and quite uniform in appearance. The cervical glands were symmetrically enlarged as in pediculosis capitis.

The second patient was a younger brother of the first and had not yet been treated. His scalp showed one or two long oval keria just over the left ear.

The boys, who were very intelligent, said that they were thrown more or less intimately with horses and cows, but could not say that these animals showed any abnormal conditions on their skin. Another boy at the same school was also afflicted with a similar-looking disease.

Dr. Burns demonstrated specimens of the hair from the second boy's scalp, which contained very numerous spores of the megalosporon. In places the growth was so dense that a mosaic structure was present, but at the periphery the typical mycelial formation with the well-recognized rectangular, large spores was clearly demonstrable.

Dr. BOWEN was struck by the large amount of pus present in both cases, which he regarded as somewhat unusual.

Dr. JAMES C. WHITE remarked that the uniform and abundantly purulent nature of the lesions suggested the animal source of infection. The irregular, jagged outlines of the patches of alopecia was also noticeable, resembling those occurring in epidemic alopecia once observed by him.

Dr. HOWE regarded the cases as typical of kerion.

Dr. MCCOLLOM had seen four or five similar cases in patients with scarlet fever or with diphtheria and had always thought the pustular element was due to the generally bad condition of these individuals. He said that the profession at large often failed to recognize these pustular cases of ringworm which were particularly prevalent among the immigrant Jews and Italians.

Dr. HARDING spoke of the great rarity of these examples of ringworm in Boston compared with their marked prevalence in London.

Dr. C. J. WHITE said that it was always interesting to him to demonstrate to his students how closely cases of ringworm adhered to the original laws which Sabouraud laid down. Clinically, microscopically and culturally the various types of the disease followed the French investigator's rules and he felt reasonably sure on seeing a case clinically to predict what would be seen under the microscope and what form of culture would result on Sabouraud's "milieu d'épreuve." All megalosporon varieties on the scalp were comparatively rare in Boston, more than ninety per cent. of the scalp cases being due to the microsporon Audouini.

A Case of Tuberculosis. Presented by Dr. C. MORTON SMITH.

The patient was a single woman, aged forty-five. Three years ago, according to her story, "spots" appeared on her neck and ankle, and she went to an hospital, where a wash was prescribed, which caused the cervical lesion to disappear rapidly but failed to influence the other "spot" which had gradually spread up to the present time. Last April she came under Dr. Smith's care, and iodide of potash and mercury were administered without apparent benefit.

To-night there appears on the dorsum of the left foot a red, infiltrated, sensitive, flat-topped, raised band, one inch wide, extending from the toes up to the tarso-tibial joint. Over the outer malleolus there are two lesions, one small and the other one inch in diameter, which were once separate but were now connected by a narrow isthmus. The lesions were round, boggy, red and were covered centrally by a thick, dry, yellow scale or crust. These lesions had never ulcerated.

On the right leg over the inner malleolus appears another sharply-outlined lesion, quite similar to those just described.

The woman affirmed that she had never been about bare-footed and that nobody about her had had consumption.

Dr. BURNS was inclined to regard the case as tuberculosis on account of the chronicity and slow evolution of the disease.

Dr. TOWLE held similar views but spoke of the rather unusual seat of the disease.

Dr. HARDING agreed to this diagnosis in the main but thought that the left-sided lesion suggested lupus erythematosus.

Dr. JAMES C. WHITE looked upon the case as tuberculosis. He had seen the feet thus affected in a child who went about "barefoot," whose father was in advanced consumption. The method of infection in the present case was not apparent. As to the possibility of lupus erythematosus, he had never seen a case of this disease upon the feet.

Dr. SMITH said, in closing, that some of the lesions did suggest by day lupus erythematosus. The disease, which he had now followed for nearly a year, had hardly changed at all.

A Case of Lupus Vulgaris. Presented by Dr. F. S. BURNS.

The patient was shown principally on account of the good result of treatment by the X-rays, which had produced a soft, smooth, white scar on the forehead which had remained free from any return of the disease for a period of two years. On the right upper arm was a large patch of typical hypertrophic lupus quite similar to the earlier lesion on the forehead before the X-ray treatment had been employed.

The members congratulated Dr. Burns on the satisfactory and apparently permanent result of his treatment of the case.

A Case for Diagnosis. Presented by Dr. J. T. BOWEN.

The patient was a strongly-built, robust man of middle age. Twelve or fifteen years ago a small lesion appeared on the lower left abdomen and has spread slowly until the present time, when it has reached the size of a silver dollar. The lesion appears as an irregularly rounded area, dark red in color, smooth and practically free from infiltration. The periphery is quite sharply bounded, but presents no other features and seems quite similar in all respects to the central portions of the lesion. There are, however, at the lower margin, three small, whitish, rounded, raised, firm nodules which are in reality scars, the result of previous treatment with fuming nitric acid. Subjective symptoms are practically absent, the only feature being a slight tingling when the man is warm. The patient ascribes the disease to the bites of wood ticks, with which he was greatly annoyed in California at the time the disease commenced.

Dr. TOWLE thought that the color and chronicity suggested either tuberculosis or lupus erythematosus.

Drs. HARDING, SMITH and MCCOLLOM leaned toward the diagnosis of tuberculosis but considered that there were certainly reasons against such an opinion.

Dr. JAMES C. WHITE said that the appearances suggested both epithelioma and lupus erythematosus. He had seen two such cases, both of prolonged duration, over the sacral region in women of middle age. The cases resisted all forms of treatment, including iod-glycerin and concentrated nitric acid repeatedly applied. Both lesions were finally excised, one of them was examined microscopically, the other was lost. Pathologically the diagnosis was as puzzling as the clinical had been. The rete showed a wide field of strange, hypertrophied, epi-

thelial cells of all sizes and appearances. Below the epidermis there was a broad, continuous band of degenerated elastic tissue—elacin. A provisional diagnosis of epithelioma was made.

Dr. C. J. WHITE considered the case to be epithelioma and felt that he had seen similar chronic, benign, superficial, gradually spreading growths. He considered the surface too uniform and too free from scales to admit of the diagnosis of lupus erythematosus.

Dr. BOWEN could not agree to the diagnosis of epithelioma on account of the total lack of infiltration.

A Case of Recurrent, Periodic Palmar and Plantar Desquamation.

Presented by Dr. J. S. HOWE.

The patient was a bookkeeper aged forty-five. According to his story he has noticed for the last twenty years a desquamative condition of his palms and soles, occurring usually during the early spring and early autumn months. The skin in these regions is always less moist than elsewhere on his body, and never sweats, but twice in each year, without any apparent warning, the palmar and plantar surfaces begin to dry up and to desquamate. This condition lasts about three weeks and eventually the skin returns to its former quasi-normal state.

To-night the palms appear grayish in color, quite dry to the touch, and are covered with fine, rather adherent scales. The adjacent skin of the wrist and of the back of the hands seems normal in every respect, and the man is apparently in perfect health otherwise.

There is, however, a slight dryness of the scalp, which shows a moderate universal dandruff and a distinct redness along the margins of the hair. The nails are quite normal. The man states that his mother was subject to the same local disturbances.

Dr. McCOLLUM remarked upon the absolute similarity of the present appearances to the desquamative stages of the palms in scarlet fever and said that without knowing the history of the present case it would be impossible to deny that the man had not had scarlet fever.

Dr. SMITH was quite in accord with Dr. McCollum's remarks but said that the history would debar such a diagnosis. He would call the disease recurrent scarlatiniform dermatitis.

Dr. JAMES C. WHITE thought the case resembled a retention of epidermal cells rather than a true desquamation, such a condition as is generally found associated with universal xeroderma and with anidrosis or asteatosis. There was no condition of preceding hyperæmia or dermatitis in this case as we generally find in a desquamative process.

Dr. BOWEN did not agree to this interpretation of the process and would regard the condition as allied to the class of recurrent scarlatiniform eruptions.

Dr. C. J. WHITE offered no diagnosis but suggested the possible relationship of the disease to keratosis palmaris et plantaris hereditaria.

A Case of Copaiba Eruption. Presented by Dr. J. S. HOWE.

The young man was brought before the Society on account of the intense grade of the dermatitis following the ingestion of the drug. The patient took the drug for eight days, when the face began to show marked,

bright and red macules and papules. Two days later the eruption appeared upon the body and soon was distributed everywhere in great abundance. Over the shoulder the lesions were full red in color. The throat was much congested. The buttocks showed mulberry-colored maculo-papules, while there was a distinct hæmorrhagic condition in the bend of the knees.

Dr. C. J. WHITE was surprised at the rather long interval of forty-eight hours which elapsed between the outbreak on the face and the general universal eruption on the body.

Dr. SMITH, who had seen the dermatitis in its incipency, spoke of the close resemblance of the facial lesions to those of measles—only the absence of coryza and conjunctivitis made it possible to eliminate this exanthem. He thought that the later manifestations more closely resembled the poisoning from sandal oil which he thought caused lesions more localized, more discrete, more itchy and more scarlet than those resulting from copaibal intoxication.

Dr. POST did not recognize these differences to which Dr. Smith had alluded.

Dr. JAMES C. WHITE asked if any of the members had seen similar cutaneous manifestations in cases of untreated gonorrhœa due to the probable action of the toxins produced by the gonococcus. Such cases had been recorded by French observers.

Dr. POST said that he had never seen such instances.

Dr. BOWEN asked if any member had ever seen an eruption of balsamic origin in individuals without an accompanying urethritis.

Dr. SMITH referred to certain waves of balsamic eruptions which he had noticed in his genito-urinary work and queried whether the dermatitis was due to personal idiosyncrasy or to the age or special qualities of the balsamic preparations.

Dr. MCCOLLOM drew the society's attention to the pigmentation on the man's back and said that exactly similar appearances followed an eruption of measles. He then referred to the great difficulties at times experienced in differentiating between measles and certain cases of copaibal dermatitis and the roseola of syphilis.

A Case of Pemphigus (?) Cured by the X-Rays. Presented by Dr. ABNER POST.

As this case is to be published later in extenso, no further description will be given here.

CHARLES J. WHITE,
Secretary.

NEW YORK SOCIETY OF DERMATOLOGY AND GENITO-URINARY SURGERY.

MARCH MEETING.

Dr. KINGSBURY in the Chair.

Case of Extragenital Chancre. Presented by Dr. C. M. WILLIAMS.

G. J., male, age thirty-two. The patient handles a good many dirty rags in his business. He denied all sexual intercourse for a period of six months preceding the development of this disease.

About a month before the development of the sore there was a possibility of infection by kissing. He does not smoke at all. Seven or eight weeks ago a pimple appeared at the right angle of the mouth, and gradually developed into a typical *ulcus durum*. It was followed in two or three weeks by a general eruption and marked prostration; all of which symptoms are now present, and in addition, great enlargement of the glands under the left side of the jaw, and slight general adenopathy. It is a typical case of extra-genital chancre, and has the interest, common to all such cases, of showing the constant risk of infection by unsuspected agents, and the danger to the community arising from the failure to recognize and treat such lesions.

Case of Syphilis Insontium. Presented by Dr. C. M. WILLIAMS.

Mrs. A. B., widow, fifty-one years of age. Her son is a syphilitic, and infected his wife, who was confined in September, 1903, the child having a syphilitic eruption when born.

Mrs. A. B. attended the confinement and took care of the child, and soon after developed an eruption which has grown worse up to the present time. The site of infection cannot be found. At present, she shows a general purulent and rupial syphilide, especially well marked on the arms. Attention is called to the three cases of innocent syphilis, all owing their origin to one man.

Case for Diagnosis. Presented by Dr. COCKS.

Mrs. B., age thirty-seven. A native of Pennsylvania. Has had five children and one miscarriage at the second month, due to overlifting. She is now seven months pregnant. She has had one malarial attack, the only sickness she remembers. During her previous pregnancies she felt exceptionally well.

The onset of her present illness, March 1, 1905, was ushered in by a chill lasting two hours. The following morning the patient was unable to talk and swallowed with difficulty on account of the condition of her tongue. On the buccal-mucous membrane alongside of tongue, soft palate and the vermilion border of the lips were numerous pea-sized vesicles.

The vesicles were not tense, a few had ruptured and there was slight bleeding from base; on drying the same with absorbent cotton, serum exuded.

Under local treatment the condition gradually subsided and no further trouble was experienced until seven months ago (August, 1904), when she became pregnant.

Instead of the menstrual flow, a chill followed by an attack similar to the first has taken place with the regularity of previous menstruation. The tongue remains swollen three or four days, "although she is able to swallow liquid food." For two weeks the vesicles appear and rupture; during the third week the outbreak gradually subsides and the fourth is one of comparative comfort, to be followed seven to ten days after by the chill, swollen tongue, vesicles, etc.

The patient has lost weight and is unable to sleep. Temperament is normal even during the chill. Urine and blood examinations negative.

Case Showing Dermatitis Seborrhœica, Pityriasis Rosea, and Syphilis in the Same Subject. Presented by Dr. COCKS.

Miss W., age twenty-four. Native of United States. Domestic. Five months ago chancre appeared on the labia majora, followed by a roseola, general adenopathy, pharyngitis and laryngitis.

March 10, 1905. Just below the occiput there is a dollar-size patch of dermatitis seborrhœica. On the chest a fading pityriasis maculata and circinata, but most typical on arms and back. The palms of each hand are the seat of a squamous syphilide, simulating eczema. Several pea-size indurated papules mark the border of the lesion.

Syphilitic Glossitis. Presented by Dr. W. B. TRIMBLE.

The patient, a man aged thirty-four, on his first visit exhibited a tongue filled with furrows, fissures and indentations; in addition, he also had on the dorsal aspect, several filmy patches or opaline plaques more or less irregular in outline.

He complained of pain, soreness and burning, especially during meals. He is a moderate smoker. The trouble has existed for five years; beginning on the left side about one inch back from the tip, and gradually spreading over the dorsum, until the whole front half of the organ is affected.

He gives a history of having had a "sore" on his penis eleven years ago, and remembers that only one sore existed, but his memory is a little hazy as to the period of incubation and character of the lesion. He does remember, however, that it healed in less time than two weeks, and he was never troubled until the appearance of the tongue symptoms.

He was put on "mixed treatment" and given a mouth wash. He has now been under observation for six months and during that time the dosage of hydrarg. bichlor. and kalii iodat. have been increased

gradually until he reached 1-10 gr. of the former and 30 gr. of the latter, three times daily. Various mouth washes have also been given, and local applications made to the tongue.

His condition remained unchanged, treatment causing no appreciable benefit up to three weeks ago, when a former experience prompted the use of $\frac{1}{4}$ gr. protoiodide tablets *dissolved on the tongue*. A marked change for the better was noticed on his last visit, but the patient is still far from well.

The case is of interest from two standpoints: (1) That the late lesions of syphilis are sometimes the first to be noticed, and (2), the benefit caused by dissolving the protoiodide tablets on the tongue.

A Case of Leukoplakia Buccalis of an Unusual Type. Presented by Dr. W. B. BROWN.

The patient is a male, age forty-nine. The disease was first noticed five years ago and has not increased in size since that period. This statement seems hardly probable, however. The patient states that some of the smaller patches have become loosened and that he has peeled off parts at various times. At present there is a pure white, elevated, sharply defined patch on the gum of the right side and corresponding mucous membrane of the cheek extending towards the angle of the lip. Near the mouth there are separate smaller patches of a filamentous type. The white dense tissue seems imbedded in the mucous membrane. There is no inflammatory area surrounding the patches. The peculiar filaments seen in some of the patches led Dr. Brown to believe the condition to be of mycotic origin. The tissue was difficult to remove with the curette. Upon microscopical examination, Dr. Brown expected to find the mycelia and spores of the *leptothrix buccalis*, but the scrapings only showed dense fibrous tissue. There is no history of syphilis. The patient has not smoked for two years. A small patch of ordinary leukoplakia buccalis is to be seen on the mucous membrane of the left cheek.

A Case of Syphilis in a Female Which Had a Very Striking Resemblance to Lupus Erythematosus. Presented by Dr. B. LAPOWSKI.

The patient is a female, about thirty-five years of age, and does not give a history of syphilis. She has been married fourteen years and has had three children. The first died from membranous croup when twenty-two months old; the two other children, girls eleven and twelve years old respectively, are alive and well.

Nine years ago the patient had a miscarriage of a six months old fœtus. The present eruption, which is scattered on the scalp, ears, face, arms, dorsal aspects of both hands and fingers, and one spot between her breasts, appeared first two years ago on the left ear and gradu-

ally developed into the present condition. During the two years, spots were always present on some of the aforementioned places. She did not consult a physician, as the eruptions did not discomfort her.

At the above-mentioned places can be seen raised, red, infiltrated papules, single or arranged in patches, circles, and semicircles. The papules are pinkish or reddish in color with a raised border, and their innermost central part is slightly depressed and scaly. The glandular ducts under the scales are patulous and fitted with prolongations from the scales. The spots on the ears, hands, and between the breasts present in a striking form the foregoing characteristics, while in the spots on the arms and face the central portion is elevated rather than depressed, but showing scales with the characteristic prolongations. Some pinhead-sized scars are scattered on both cheeks. The mucous membranes are normal.

The patient was given inunctions and potassium iodide, and in four weeks some of the papules had entirely disappeared without leaving any scars, and the rest are rapidly disappearing.

Cornu Cutaneum. Presented by Dr. W. B. TRIMBLE.

The patient, a man aged sixty-two, presented himself on March 10, 1905, with a button-like growth on the dorsal aspect of the left hand, about one-half inch behind the base of the index finger. This condition will probably be classed in that variety of diseases known as "cutaneous horns."

The growth began eighteen months ago as an ordinary wart, and was removed several times by the patient, sometimes with a jackknife, and sometimes with a preparation bought at the neighboring pharmacist's. At present it has not been molested for six months. It is now about one-quarter inch in diameter and stands up one-half inch on the back of the hand. Viewing his hand from the side, it grows somewhat like a mushroom, being constricted in the middle, the top spreading out "umbrella fashion." It resembles somewhat a heavy-topped rivet. It is chocolate-brown in color and its consistency is almost that of bone. Around the base of the growth, on the soft part of the hand, is a distinct ridge, very slightly pinkish, but no inflammatory condition exists.

Upon removal, the base looked rather epitheliomatous, from a clinical standpoint, consequently it was curetted very vigorously and also cauterized with the pure silver stick.

Diffuse Idiopathic Atrophy of the Skin and Scleroderma. Presented by Dr. W. B. BROWN.

Male. Age thirty-nine. Always enjoyed good health. Urine fairly normal. Examination of eyes reveals no lesion. Seventy-five per cent. hæmoglobin. Blood pressure slightly below normal. Heart, lungs,

liver and kidney normal. Had a fall from a horse five years ago in Ireland, with no bad after effects, however. Disease began two years ago as a scaly patch on the right knee. At present both lower extremities from Poupart's ligament downward are involved. The skin around the knee is markedly sclerodermatous. There is a band of scleroderma on the inner side of thigh. Several small patches of scleroderma are found in other locations. The skin of thighs and buttocks shows thinning, wrinkling, and gives that peculiar "cigarette paper" appearance. The superficial veins are very conspicuous. The upper border is sharply defined and reddish in color. The patient has been subject to numerous traumatic ulcerations during the course of the disease and a number of pigmented patches mark the site of former ulcerations. The patches of scleroderma in some cases are pigmented, and in others they are of an ivory-white color. When the patient is standing, there is a purplish color to the skin. The patient states that about two years ago, when in the hospital, there were numerous large bullæ on his legs around and below the knee. The sensation in the skin is normal.

Ichthyosis. Presented by Dr. H. G. MACADAM.

A. B. Age twenty-eight. Single. Occupation, clerk. Parents and grandparents in normal health, never having had any skin diseases. Patient's four older brothers and sisters are affected like himself. The three youngest children are not affected. When eight or nine years old the skin became dry, scaly and roughened. Extensor surfaces were more severely affected, particularly the elbows. This gradually spread until practically the entire body became covered and plates of skin formed, giving parts of the body the appearance of alligator hide. This condition always disappears in warm weather, and is intensified after bathing.

The patient came under my observation September 6th, 1904. He had coitus with different women for the three preceding weeks. I found at this time a deeply-ulcerated inflamed prepuce with slight induration. No adenopathy. Diagnosis reserved and sore touched with pure carbolic acid, because of phagadenic appearance. Peroxide of hydrogen and aristol were used in liberal quantities until October 22, 1904, when the sore was entirely healed, there remaining a markedly indurated nodule at site of sore. No secondaries appeared and patient was seen once a week for three months and disappeared without a positive diagnosis.

On February 5th, 1905, he came to me again with another lesion, following three weekly exposures. This lesion was in the center of the still present indurated nodule on the prepuce. It was perfectly clean, and looked as if the center of the induration had broken down. On the theory that I was dealing with syphilitic induration rather than inflammatory thickening, I applied for six days ung. hydrarg. oleatum, at

which time there was much less induration, and the sore (?) was healed. I then made out shot-like glands in both inguinal regions.

Diagnosis: Syphilis contracted July, 1904, and eruption masked by the ichthyosis.

On March 14th, persistent severe nocturnal headache developed, also mucous patches in the throat. No eruption to be seen, and no general adenopathy.

Case of Necrotic Granuloma. Presented by Dr. KINGSBURY.

The patient is a young woman twenty years of age. General health has always been fairly good. For the past three years she has had the characteristic lesions and cicatrices on the forearms, hands and legs. Tubercular glands on left side of neck have been present for nearly one year. Marked improvement followed the administration of iron and small doses of potassium iodide. At present the glands in the neck are greatly reduced in size; and ulcerations on forearms and legs are all healed. Some necrotic lesions are still present on the hands.

REVIEW of DERMATOLOGY AND SYPHILIS

Under the Charge of JOHN T. BOWEN, M.D.

ANATOMY, PHYSIOLOGY AND PATHOLOGICAL ANATOMY.

By CHARLES J. WHITE, M.D., Boston.

Staining of Elastin, and the Use of Counter-Stains. L. H. HUIE. (*Brit. Jour. Dermat.*, 1904, p. 392.)

For fixing the specimens Huie recommends corrosive sublimate, alcohol, Müller's fluid and especially the following solution: Glacial acetic acid, 3 parts; formalin, 7 parts; alcohol, 70%, 90 parts.

Paraffin sections are then treated in the following manner:

1. Taenzer's acid orcein 24-48 hours at room temperature, or Unna's acid orcein 12-24 hours in incubator at 37° C.

2. Absolute alcohol.

3. 50% alcohol.

4. Wash in water.

5. 1% Aqueous solution of eosin, fifteen minutes.

6. Water.

7. 1% solution of toluidin blue, five minutes.

8. Water.

9. Absolute alcohol until the eosin reappears and the cell nuclei show their nucleoli.

10. Xylol or bergamot oil.

11. Balsam.

By this method the elastic fibres are stained black, the nuclei a light blue and the connective tissue pink.

Mitoses in Mast-cells. L. H. HUIE. (*Brit. Journ. Derm.*, 1905, p. 25.)

Huie states that he is not aware that such changes have ever been observed in mast-cells. Personally, he has never noted these evidences of cell division in human mast-cells, but describes such alterations in the mast-cells of fœtal or newly-born mice. To demonstrate these mitoses he recommends staining the skin with Unna's polychrome methylene blue, Heidenhain's iron-alum hæmatoxylin and toluidin blue in one per cent. solution. During mitosis the cell enlarges and the granules gather at its periphery, the cell assuming a dumb-bell shape before the separation into the daughter cells.

Herpes Progenitalis, Pathological Anatomy of. KOPYTOWSKI. (*Zur Pathologischen Anatomie des Herpes Progenitalis. Archiv f. Derm. u. Syph.*, LXVIII., pp. 55-80 and 387-482.)

Kopytowski states that the vesicles must be excised in their formative period if one wants to secure the best insight into the anatomy of the lesions of herpes progenitalis.

The writer concluded that the vesicle as a rule lay just under the stratum corneum and usually consisted of a single chamber. At times the vesicle was bounded by open spaces filled with exuded material or isolated cells. In other instances the chamber was filled with elongated, spindle-shaped cells bearing atrophied nuclei, and again the vesicle contained fibrin meshes holding exudation products and detritus.

When the roof was formed by horn cells, Kopytowski found them separated and containing fibrin or leucocytes. Kerato-hyalin cells apparently disappeared. If rete cells composed the upper boundary they appeared degenerated and confluent, and exhibiting shrunken nuclei and vacuoles.

The side walls of the vesicles usually consisted of flattened, long, spindle-shaped and bent rete cells. These cells were often œdematous, showing net-like protoplasm, and later were separated, lost their prickles and became round or oval. The nuclei also shared in the degeneration and appeared shrunken and deeply stained.

Toward the base of the chamber the œdematous changes were more accentuated. The bottom of the vesicle seldom lay in the rete, but rested upon the papillary layer of the cutis. It was thickly infiltrated with leucocytes, which often formed an indefinite lower boundary.

In time the vesicle was gradually forced upward, the chamber shrunk in volume, the fluidity dried up and the clinical crust was formed.

Occasionally, great foci of infiltration were observed in the corium. Such cell masses were or were not directly contiguous to the base of the vesicle and contained polynuclear leucocytes, serous exudates, fibrin and epithelioid cells. Elastic fibers were thinned and atrophic.

Kopytowski studied the neighborhood of these vesicles and found that the horny layer contained small lacunæ filled with a fine granular exudate with or without epithelial detritus. The rete cells were at times flat, œdematous or vacuolated and presented occasional invading leucocytes. The papillæ were elongated, œdematous and often contained spaces filled with a fine granular exudate. The connective tissue cells were swollen and their nuclei enlarged. The papillary vessels were dilated and exhibited endothelial changes. Cellular infiltration was often intense and affected the vessels most often, but appeared at times about the hair sheaths and glands, while the deeper vessels themselves were dilated, empty and showed endothelial changes. Elastic tissue was normal, but the sweat glands were often dilated.

According to the author all these pathological changes in herpes progenitalis were quite analogous to the abnormal conditions observed in herpes zoster.

Kopytowski inferred that the toxic agent arose from the deep or superficial vessels of the corium and produced the accidents which he had noted in the foregoing study.

Nuclear Degeneration in Cutaneous Inflammatory Processes. R.

VOLK. (*Ueber Kerndegenerationen bei kutanen Entzündungsprozessen. Archiv f. Derm. u. Syph.*, November, 1904, p. 217.)

In 1894 Jadassohn described a pathological product which he had found in several cases of gonorrhœa. These products appeared as irregular threads, sometimes elongated and suggestive of connective tissue nuclei, or, again thickly apposed and of most diverse shapes. Jadassohn regarded these bodies as degeneration products and, differing from Dinkler, who considered them mucinoid, he held them to be fibrinoid in nature.

Unna, possibly, describes the same bodies in malignant pustule under the name of chromatotexis (*kernschmelze*). They are due to bacillary toxins and appear along the vascular tracts as deeply staining chromatin drops and nuclear remains. Ehrich and Zieler met similar degenerative changes in malignant pustules and Jadassohn again found them in his studies on lupus erythematosus.

Volk considers these bodies as quite common and says that microscopists usually refer to them as artefacts. They appear as a confused mass of chromatin threads and rods arranged in a heterogeneous manner difficult to interpret. On investigating more carefully for the earlier stages in the process one is struck by the rich variety of forms present. One finds irregularly rounded types suggestive of leucocytes or more complicated structures reminiscent of a string of pearls, or again, con-

nective tissue types. Nowhere, however, does one find any trace of a cell body.

These earlier forms may exist together. They vary greatly in size, at times reaching across the whole field of an oil immersion lens. They absorb practically all nuclear dyes, but do not hold the Weigert fibrin stain nor do they constantly react to mucin coloring agents.

Volk examined many sections and found that these degeneration bodies could exist in all, especially the chronic inflammations of the skin. They were particularly prone to appear where the corium was degenerated. In tumors, on the other hand, they were present only when there was a marked cell infiltration.

The author found the same appearances after experimental inflammations of the rabbit's ear. In this case the bodies appeared from the second to the eighth day and were found in the midst of the infiltrating cells, but never in the epidermis nor in elastin nor in collagen. Volk regards these bodies as inflammatory products and as derivatives of nuclear degeneration, basing his conclusions on the facts that the bodies react to nuclear stains and that they occur in tissues rich in nuclei.

Inflammatory Atrophy of the Subcutaneous Connective Tissue.

A. KRAUS. (*Entzündliche Atrophie des subcutanen Fettgewebes. Archiv f. Derm. u. Syph.*, Vol. LXXII., p. 407.)

This condition was first described by Pfeifer and later by Rothmann, who found that this change was rarely a primary one. According to another writer, Marchand, fat tissue always takes part in the growth of connective tissue in the neighborhood of necrotic and inflammatory areas. Marchand also described an endogenous fat cell production following frost bite gangrene.

Heitzmann found that after deep chronic inflammation of the skin changes in the fat cells were produced similar to those observed in emaciation and he regarded this process purely as a return of the fat layer to its normal embryonic condition rather than as a growth or an atrophy of the adipose tissue.

Audry noted alterations in the fat layer in cases of erythema induratum, which he described as numerous round spaces containing a yellow, oily liquid.

Thibierge and Ravaut found, macroscopically, in this same disease, hard tumors of a yellow color, deep down in the tissue and clearly separated from the adjacent parts. On section they gave out an oily liquid and were found to be chambered off by fibrous septa. Microscopically, these bands contained numerous vessels showing endothelial growth and at times inflammation of their walls. Within these fibrous partitions appeared normal inflammatory or necrotic fat tissue.

Harttung and Alexander also observed in erythema induratum noteworthy changes in the pannicular adiposus. They described polygonal

or round spaces containing large cells with crescentic nuclei and protoplasm varying in substance from the normal to an amorphous condition. They noted a subsequent absorption of the fat, a later compensatory hypertrophy of the fat cell nuclei and a final fatty degeneration.

Kraus's own investigations were made on one of many chronic syphilitic gummata. On section this nodule presented what seemed to be a thrombosed vessel, many branched connective tissue bundles and scattered, round, empty spaces in the fat tissue. Microscopically, the sections showed in the upper parts of the skin moderate œdema and a medium infiltration of small cells along the vessels. The subcutaneous fat, however, revealed marked changes. Superficially, a typical softening gumma was present and from the periphery of this necrotic area bands of fibrous tissue extended into the underlying inflamed fat tissue. In places the exuded inflammatory cells could be seen undergoing connective tissue metamorphosis, while in other fields the adipose cells could be detected in frank atrophy. The connective tissue surrounding the individual fat cells was filled with round, polyhedral or elongated cells, some of which exhibited vacuoles. Other cells showed various stages of degeneration into giant cells.

INFLAMMATIONS.

By F. S. BURNS, M. D., Boston.

Herpetische Eruption als Vorstadium eines Haut Carcinom neben Herpes Zoster. ADOLPH SCHMIDT. (*Archiv für Derm. und Syph.*, June, 1904; p. 321.)

Female patient, æt. sixty-two; previous history unimportant. For preceding two years small glandular enlargements in supraclavicular fossæ; during the past year the patient has become progressively emaciated and has suffered from frequent attacks of dyspnœa.

Over the upper portion of the sternum, the percussion note was higher than normal; a radiograph of this region showed a distinct shadow. The affection was considered a malignant tumor of the anterior mediastinum. A typical herpes zoster developed in the region of the fifth to seventh cervical nerves roots, and extended down the radial side of the arm.

This eruption was soon followed by a second of an herpetic character over the right mammary region, and a third about the anterior and lateral portions of the neck.

After healing of the two latter outbreaks there remained a papular infiltration of the skin, which gradually enlarged, became reddened and formed flat nodules firmly adherent to the subcutaneous tissue, from which it apparently originated. Ulceration finally took place, producing a carcinomatous appearance.

Schmidt explains the occurrence of the zoster by pressure of the tumor on the posterior nerve roots.

A biopsy taken from the affected mammary area showed typical cancerous infiltration, with an alveolar arrangement of the epithelial cells.

Epidermolysis Bullosa. LILIENTHAL. (*Archiv f. Derm. u. Syph.*, May, 1904; p. 143. Berlin. Derm. Gesell.)

Lilienthal presented a case of epidermolysis bullosa. The patient, now seventeen years old, began to develop vesicles on the hands and feet soon after birth; in recent years vesiculation has occurred only on the soles of the feet. The left hand and foot were always more affected than the right, and showed in places, distinct atrophy of the skin.

There was no history of heredity.

Hysterical Dermatosi. BLASCHKO. (*Archiv f. Derm. u. Syph.*, May, 1904, p. 146; Berlin. Derm. Gesell.)

Blaschko presented two cases belonging to the class of hysterical dermatosis.

The first case was that of a young woman, who, three years previous had had an orthoform dermatitis. From time to time there recurred on the same region of the arm, new spots, which at first sight suggested erysipelas. Under sealed dressings the eruption soon healed after each reappearance.

The second case, a girl æt. fourteen, had been under Blaschko's care for four years. The affection occurred suddenly on the face and extremities as a swelling with a sero-sanguinous exudate over the surface, and finally healing with the formation of a crust.

Blaschko considered the first case without doubt a feigned eruption, while the second he thought should be classed as an angioneurotic condition.

Epidermolysis Bullosa Hereditaria, Observations on the Recent Literature of. H. KOEBNER. (*Archiv f. Derm. u. Syph.*, May, 1904, p. 125.)

This disease was first described by the author in 1886. Cases undoubtedly of the same nature were described at about the same time under various names: as Tilbury Fox's case of congenital ulceration, and Vidal's case of progressive general trophic lesions, etc.

Köbner considers the theory of Colombini and Tommasoli regarding the elimination of products of faulty metabolism, as a causative factor in the production of the disease, untenable. He also does not consider the traumatic hypothesis of Bukovsky acceptable.

Betman's case lacked the *sine qua non*, in Köbner's opinion, of heredity and generalization: the eruption in his case having been confined to definite regions.

Bukovsky's case likewise failed in essential characteristics. The patient has only been affected since fourteen years of age, although he has worked out of doors and must have been subjected to frequent injuries of the skin; furthermore, there was no history of inheritance.

In both the writer's cases, and in those reported by Hutchinson, of pemphigus vegetans, arsenic internally was useful, but in epidermolysis it has never been of benefit.

Pemphigus Foliaceus, Clinical and Pathological Study of. J. FABRY. (*Beitrag zur Klinik und Pathologie des Pemphigus Foliaceus. Archiv f. Derm. u. Syph.*, June, 1904, p. 183.)

The following case is reported. Male, æt. forty, with unimportant family and previous personal history.

The disease began in 1901, and the patient remained in the hospital under observation for two years and a half. The first appearances on the skin began as rosaceous spots on the back and chest, with diffuse redness and scaling in both axillæ, which, in a few days, became generalized.

At this period the diagnosis was thought to lie between pityriasis rosea and eczema marginatum. Soon there was added to the initial eruption, a generalized outbreak of large flaccid bullæ with sero-purulent contents. In a few weeks the entire surface of the body was denuded of epidermis. The bullous stage lasted six to eight weeks; then followed a stage of universal dermatitis which persisted with uninterrupted severity two and a half years. The hair of the scalp, brows and lids eventually fell.

Microscopically three essential changes were noted: 1st. Enlarged papillæ extending into the corium. 2d. Dense small-cell infiltration about the papillæ. 3d. Vacuolation between the epidermis and corium.

Fabry concludes that the clinical picture of pemphigus foliaceus is so characteristic that it should be recognized as a definite division of the pemphigus group, standing next in order to pemphigus vegetans.

Two Cases of Argyrosis. SILEX. (Berlin. Derm. Gesell. *Archiv f. Derm. u. Syph.*, April, 1904, p. 432.)

Silex presented two cases of argyrosis, both occurring after therapeutic use of argentic nitrate.

The first patient who had generalized argyrosis had taken argentic nitrate internally during a long period for an optic nerve atrophy—occurring in the course of tabes. In all, twelve grams of the salt had probably been taken.

The pigmentation of the skin extended over the entire body and face, and also involved the buccal mucous membrane.

In the second case, the subject of the affection was a man who had been treated for six months with a one per cent. nitrate of silver eye-

wash for a persistent conjunctivitis. Both palpebral and bulbar conjunctivæ were extraordinarily involved. Albuminate of silver was found in the papillæ and in the roots of the hair.

Two Cases of Antipyrin Eruption. KARL LOEWY. (Ueber zwei fälle von Antipyrin Exanthem. (*Archiv f. Derm. u. Syph.*, June, 1904, p. 167.)

The first case reported occurred in a male patient æt. forty-six, who suffered from frequent severe headaches, and who was in the habit of taking antipyrin for relief. During an especially severe attack a coffee spoonful of antipyrin powder was taken. An hour later intense pruritus of the whole body occurred, and after a bath, taken for the relief of the itching, a generalized eruption appeared.

The following day, when the patient first came under observation, the skin was mildly jaundiced, the lips and eyelids were swollen, the scrotum was highly reddened and desquamating, and the glans penis presented the appearance of a flaccid bulla. In addition there were generalized symmetrically arranged brownish red spots the size of a quarter.

There was considerable systemic disturbance, shown by excited cardiac action and increased patellar reflexes. The exanthem gradually changed to a dirty blue, and finally to a brown hue during convalescence.

The second case was that of a young man who developed a measles-like eruption after taking a gram of antipyrin for a headache. The face was deeply congested, the eyelids and penis much swollen, and the buccal mucous membrane presented some vesiculation.

The first case was considered a general intoxication, indicated by disturbance of circulation and metabolism. Löwy calls attention to the icterus in this case, and remarks that he is not prepared to explain its origin, whether hepatic or hæmatogenous. The bluish tinge occurring in the later stage of the affection is considered by the writer, as well as by Von Ehrman and Brocq, to be characteristic of antipyrin eruption.

Quoting Apolant, Löwy states that acquired idiosyncrasy may occur after long use of the drug, when, after an interval, the drug is resumed. Numerous instances are mentioned of tolerance to enormous doses of antipyrin; as much as eight grams daily for two months, in one case.

ATROPHIES.

By H. G. ANTHONY, M. D., Chicago.

Erythromelia, A Report of Two Cases of. CARL GRUVEN. (*Archiv f. Derm. u. Syph.*, 1904, Vol. 70, p. 206.)

Erythromelia, a disease of the extremities first described by Pick in 1894, presents plaques of circumscribed and diffuse bluish redness of the skin of the extensor surface of the extremities unaccompanied by other changes.

As the disease progresses a crumpled cigarette paper atrophy of the skin and also an ectasia of the veins develops in the older areas. Pick called the disease erythromelia because he thought it was related to erythromelalgia.

These are the first cases in which a histological study of the disease was made. The subcutaneous tissue at first view appeared to be absent, but careful study showed that its location was marked by a few fat drops. Sweat gland ducts are only sparingly present; their superficial location is due to the thinning of corium. Papillæ and rete pegs have disappeared so that the upper border of the cutis forms a straight line and contains an abnormal amount of pigment with occasional areas containing distinct and numerous vacuoles.

The stratum mucosum is also thin, consisting of four to five layers of cells; the stratum granulosum and stratum lucidum are absent. The stratum corneum is thickened.

The most important changes are in the corium, the collagen bundles of which are unusually hard, swollen and homogeneous. The elastic fibers are unusually few in number. The capillaries of the upper layer are decidedly dilated and filled with blood.

The subpapillary part of the corium presents a cell infiltration of moderate degree, consisting of lymphocytes, numerous mast cells and a few plasma cells.

The walls of the blood vessels are not especially rich in nuclei. Sweat gland ducts are few in numbers, sebaceous glands, and hair follicles are absent; no nerve fibers could be found. The unstriated muscle fibers show no change.

These changes were due in part to the senile atrophy of the skin which was present in these cases. The remaining part of the article is a consideration of the histological findings in idiopathic atrophy of the skin.

Anomalies in Development of the Hairs of the Beard. VINCENZO CHIRIVINO. (*Archiv f. Derm. u. Syph.*, Vol. 71, p. 163.)

Chirivino calls attention to a peculiar change in the hairs of the beard, which was first described by Giovanini in 1899, in which certain hairs growing from healthy skin and scattered irregularly through the beard are thickened, irregular in growth and darker in color than normal.

These hairs have split ends and they produce a follicular suppuration. Microscopical cross sections show more or less marked indentions of the shaft, and cavities in the cortical substance of the hair. Some hairs contain as many as four cavities. Where hairs are removed new ones show the same pathological changes.

Epilated hairs alone were studied and no sections were made through the hair papilla, nevertheless the author believes that the condition is due to a "distrophia papillæ."

Sabouraud's recent important article (*Ann. de Derm. et Syph.*, 1893, p. 947), which establishes the fact that friction may produce trichorrexia nodosa is not mentioned.

It is far more probable that friction causes the changes which Chirivino describes than it is that they are due to some obscure disease of the hair papilla.

Inflammatory Atrophy of Subcutaneous Fat Tissue. ALFRED KRAUS.
(*Archiv f. Derm. u. Syph.*, Vol. 72, p. 407.)

In inflammatory atrophy of subcutaneous fat tissue it has been shown that the fat globules are absorbed from the fat cells leaving the cell membrane and protoplasm. The protoplasm then proliferates and cells are produced inside the cell membrane which resemble the epitheloid cells of tuberculosis. This metamorphosis of fat cells has been observed in actinomycosis, syphilitic gummata, gangrene from frost bites and tuberculosis.

Mistaking these cells for the epitheloid cells of tuberculosis, observers have reported that erythema induratum presents the structure of the tubercle.

BOOK REVIEWS.

A Practical Treatise on Genito-Urinary and Venereal Diseases and Syphilis.

By ROBERT W. TAYLOR, A.M., M.D. Third edition, thoroughly revised.
New York and Philadelphia, Lea Brothers & Co., 1904.

The third edition of Taylor's well and favorably known treatise has appeared within a short interval after the second one. As long as a book seems to meet a demand and is finding favor with those for whom it is written, it may seem premature to doubt the compatibility of the different subjects combined in this volume. However, the diseases of the genito-urinary organs in the male are becoming more and more exclusively of surgical interest and gonorrhœa with its immediate consequences represents only a comparatively small and unimportant portion of genito-urinary surgery. On the other side syphilis is less and less considered as a merely venereal disease, and as it plays its part on the genito-urinary organs only to a very limited extent, the relations between the two classes of diseases are not very close any longer. Under such circumstances one of the subjects is likely to be more favored at the expense of the other. For the present volume the chapters on the more surgical affections of the prostate, bladder and kidney, particularly those on cystoscopy, ureteral catheterism, tuberculosis,

etc., will hardly be considered complete or fully satisfactory by the genito-urinary surgeon, although one sixth of the text and more than half of the plates are devoted to them. Among the latter, Plate XII., tuberculosis of the testicle and epididymis, could easily be spared. Otherwise the subjects have been treated thoroughly and practically and the author's personal experience, power of observation and acquaintance with literature are everywhere conspicuous. Even slight and unimportant, sometimes rare symptoms or affections, which often are puzzling to the practitioner, are mentioned and described, however briefly, with admirable clearness. Another welcome feature is the introduction of venereal diseases as found on the genitals of women.

Gonorrhœa with its immediate sequelæ occupies 170 pages, including stricture over 225. The description of the symptoms is excellent and exhaustive. The gonococcus is recognized as the cause of gonorrhœa and its development upon and within the tissues is minutely described, although the illustrations in the text are rather poor and the plate (I), showing invasion of the tissues, lacks distinctness owing to the want of staining of the cocci. The author's somewhat rosy view of the disappearance of the gonococci after about six months and the opinion that too much stress has been laid by some writers upon gonococci in chronic urethritis (p. 37 and 92) will not meet with universal approval. The statement that there are at least thirty cases of gonorrhœa in the male to one case in a woman is not in agreement with the claims of gynecologists. The culture test and its importance in chronic cases is not mentioned. The professed aim of the author in matters relating to treatment to present wholesome, conservative and practical directions, is certainly laudable, also that attention has been directed to the fallacies and dangers of some of the views nowadays advanced in the therapeutics of this disease and an emphatic protest made against them. But it is hardly dignified to disparage as "fads" the honest and very often successful efforts of those who have tried to improve upon the old "classical" treatment, and to question and discredit their results, particularly since the author himself claims the effectiveness of some not less heroic methods applied by himself (p. 56). To deny all advantages to the numerous modern silver preparations will not convince the hundreds of practitioners who are using them with more or less success.

Syphilis, always the author's favorite domain, has been treated in his usual conscientious, exhaustive and interesting manner. The more general chapters on the nature, course and prognosis (p. 462), and on the general methodical treatment (p. 670), are particularly fine; the common sense and humane views expressed there cannot be too much recommended to the general practitioner, who is often only too much inclined to make the patient's life unnecessarily miserable. The bacteriology of syphilis has been duly considered; some of the recent claims for certain microbes and the latest experiments relating to the infectiousness of animals by the virus of syphilis are mentioned. The symptoms of the disease are described in a manner that leaves little to be desired; the division into secondary and tertiary symptoms, for which we have nothing better to offer, necessarily implies some repetitions. The statement (p. 543) that *tinea versicolor* "always" is present over the sternum, and that scales of *tinea circinata* "always" contain the parasite, may occasionally lead to mistakes. Diffuse patches of the late palmar syphilide (p. 532) resemble chronic eczema rather than psoriasis, particularly if the margin shows undermining of the superficial epidermic layers. The different methods of treatment are thoroughly described, including hypodermic injections of the bichloride of mercury. Injections of calomel and other insoluble salts are not recommended because their use is attended by many dangers. The salicylate is mentioned as a soluble salt although it has been used in that form but exceptionally. It seems hardly possible that the more or less common use of the salicylate in the insoluble form should have escaped the

notice of the author, as well as that of gray oil and other preparations of the metallic mercury.

The book is remarkably free of printer's errors, but on pages 501, 504, 514 and 537 the references to the colored plates are incorrect and may mislead the inexperienced reader. The almost entire absence of references to literature is somewhat disappointing.

H. G. K.

A Compend of the Practice of Medicine. By DANIEL E. HUGHES, M.D., Seventh edition, revised and a section on mental diseases and skin diseases added by SAMUEL H. BROWN, M.D. \$2.50 net. P. Blakiston's Sons & Co., Philadelphia, 1904.

The numerous editions of this volume speak louder of the professional opinion of it than anything we could say. One hundred and twenty pages on skin diseases have been added which on the title page is called "a very complete section on skin diseases."

Essentials of Diseases of the Skin, including the Syphilodermata, arranged in the form of questions and answers, prepared especially for students of Medicine. By HENRY W. STELWAGON, M.D., Ph.D. Sixth edition, thoroughly revised. Illustrated. W. B. Saunders & Company, Philadelphia and New York. 1905.

A new edition of this well-known manual has appeared which epitomizes the teachings of the author as found in his text-book and can be highly recommended to the student preparing for an examination, which we believe is all the author claims for this compend.

Studies in the Psychology of Sex; Sexual Selection in Man. By HAVELOCK ELLIS. F. A. Davis Company, Philadelphia.

Practitioners of cutaneous medicine, perhaps more than other specialists, realize the enormous power of that æstheticism which drives many of their patients to submit to tortures for the removal of blemishes which in themselves are of little discomfort. This desire to appear attractive, commonly attributed to vanity, is, according to Havelock Ellis, chiefly founded upon sexual instincts. The skin with the dermal appendages such as hair, nails, teeth, sweat and oil glands undoubtedly do play a great part in explaining many of the mysteries of certain cases of sexual attraction, and to dermatologists as well as to those interested in anthropological studies this book is of value, but unfortunately such books are mostly sought after by those with a curiosity not altogether commendable. In any case, we do not see the advantage of publishing case histories such as some of those in the appendix.

Eye, Ear, Nose and Throat Nursing. By A. EDWARD DAVIS, A.M., M.D., Professor of Diseases of the Eye in the New York Post-Graduate Medical School and Hospital, and BEAMAN DOUGLASS, M.D., Professor of Diseases of the Nose and Throat in the New York Post-Graduate Medical School and Hospital. With 32 illustrations. Pages xvi.-318. Philadelphia: F. A. Davis Company. 1905. (Price, \$1.25.)

As a guide to assist the nurse in caring for the various diseases of the eye, ear, nose, and throat, and especially as to her duties during and following operations upon these organs, this manual seems to be very opportune. In laying great stress upon the all-importance of surgical cleanliness and careful directions as to the preparation of dressings, bandages, douches, first aid in emergencies, etc., the authors are to be commended. The descriptive anatomy and physiology of these organs are here given, more to keep the nurse in touch with what is being done for the patient by the medical attendant than as suggestions for initiative on her part, and more emphasis should be placed upon this fact. The book is well illustrated.

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FURTHER OBSERVATIONS ON ACRODERMATITIS CHRONICA ATROPHICANS.

FROM THE DEPARTMENT FOR SKIN DISEASES OF THE CITY
HOSPITAL IN FRANKFORT-ON-MAIN.

By Dr. CARL HERXHEIMER, Senior Physician.

ACRODERMATITIS chronica atrophicans was described by me in an article written in conjunction with K. Hartmann, in the year 1902. At that time I had the intention of separating from the atrophies of the skin those which have an inflammatory beginning; but it was soon found necessary to separate from these forms also, a particular group. Other writers also had sought to attain my first purpose. Shortly before, Kaposi had presented a case of dermatitis atrophicans to the Vienna Dermatological Society. It is, however, to be assumed that this group, in turn, will become too large, and that it comprises different diseases, for it is evident that forms of dermatitis accompanied by atrophy arise from different causes. Inasmuch as the etiology is obscure, we are limited to clinical observation. This observation had taught me that there is an atrophic dermatitis which progresses upwards from the ends of the extremities, often in a very definite manner, and which offers many distinct characteristics. It seemed proper, therefore, to separate this from the others.

My object in publishing the present paper is two-fold: in the first place, to establish the clinical picture of the affection, as it is not sufficiently recognized, owing to its infrequency; in the second place, it is my purpose to satisfy the doubts of those dermatologists who do not yet consent to the recognition of the affection as a new form of disease; those, for example, who consider a scleroderma to be behind it.

The number of writers of different countries who have described cases which belong to this category is considerable, and amongst them are numbered Leven, Moberg, Lesser, Leder, and Mann. It is, therefore, to be expected that an agreement will be reached as to this type of disease.

In addition to the cases that I reported in the year 1902, I have now eight new observations, so that the total reaches twenty. It seems unnecessary to record the histories of the eight new cases here, as six of them vary little from those described before. Two of the new cases, however, are quite remarkable, as well, also, as the further course of two of those described in 1902. At the outset it is to be stated, as has perhaps not sufficiently been done heretofore, that the affection may begin as a small area on a single phalanx, for example, or as a larger area; for example, one occupying the whole back of the hand. In other cases the affection appears symmetrically, and this has been the case in half of the patients observed. I have often seen the affection beginning on the backs of both hands, or on the backs of the fingers of both hands.

A druggist, about fifty years of age, consulted me in the summer of 1904 on account of an affection of the skin of the middle phalanges of the left index and middle fingers, and beneath the left elbow. The skin on the affected parts of the backs of the fingers was infiltrated and dull red, and showed, also, a certain amount of wrinkling. It could be separated from the tissues beneath. There were no subjective symptoms except a slight feeling of tension, and itching was conspicuously absent. He asserted that the change of the skin had developed gradually, so that he could not accurately determine the time of its first appearance. The affection on the flexor surface of the left elbow had probably appeared at the same time. Directly below the olecranon on the ulnar side was a firm tumor of the size of a nut, round in shape, from dark to light red in color. It was freely movable, and showed no wrinkling at its surface. Here, also, there was no itching. I immediately thought of acrodermatitis with regard to the affection of the finger, but could not explain the tumor. Excision of a piece of it for histological examination was refused, and I was therefore forced to rely upon the further course of the case with respect to diagnosis. I ordered baths of hot water, and massage. In the course of nine months the tumor had decreased two-thirds, and the skin of its surface had become more and more puckered up from the edge of the sound skin; also the skin of the backs of the fingers had become

much more wrinkled, so that it may be described as a complete atrophy. At this time, the patient was lost sight of. I have no doubt that the affection of the backs of the fingers, and also that of the elbow, was an acrodermatitis, and that the latter represents a tumor-like phase, and this, again, shows that the affection begins with an infiltration. In spite of the want of microscopical examination, the diagnosis is verified by the course, in that the changes caused by resolution of the tumor on the elbow kept pace with those on the backs of the fingers.

This view was strengthened by the appearance of a similar tumor in a much more pronounced case, which has already been described in my earlier work.¹ This was the first case that I observed. The patient, a man of forty-six, engaged in the shoe business, exhibited, when shown to a dermatological gathering on the 10th of October, 1904, a completely atrophic stage of acrodermatitis on the backs of certain fingers, as well as on the outer half of the backs of both hands, on the extensor aspects of both elbows, and on a strip of skin three centimeters wide and seven centimeters long below the right elbow. The skin everywhere offered the appearance of "crumpled cigarette paper," and was freely movable. Another change, however, was observed in two places. In the middle of the extensor side of the right elbow was a nodule of the size of a mark piece, of rounded form, reddish color, and firm consistency, which could be felt in the tissue beneath the skin. The tumor had been gradually growing for the last five months before the patient consulted me, and two months previously had already reached the size of a thaler. The skin over the nodule had become wrinkled in October. The treatment consisted of arsenic pills, hot baths, and massage. There was a second nodule of similar characteristics, about the size of a pea, seated in the middle of the atrophic territory of the back of the right hand, corresponding to the joint of the little finger. There were no subjective sensations, and the patient came simply to ascertain the nature of the nodules, which seemed to him peculiar. Later, on the 29th of November, 1904, when I showed the patient to a number of dermatologists, the nodule on the elbow had already diminished about one-half, and the nodule on the back of the hand had completely disappeared in the atrophic skin.

These two cases, which have been briefly described, teach us that there is *not only a superficial infiltrating, but also a tumor-like form of acrodermatitis*. The appearance of the latter in acrodermatitic

¹ *Archiv f. Dermatol. u. Syph.*, 1902.

territory, and its spontaneous course quite similar to that of the superficial infiltrating form, point to the fact that we are dealing here with the same process.

A case which was observed in the Dermatological Department of the City Hospital on the 13th of November, 1904, offers a variation from what has been said of the early localization of acrodermatitis. A teamster, twenty-five years old, presented on the anterior and outer side of the left thigh a large, bluish-red infiltration, covering this whole territory, which gradually merged in the sound skin above and below, as well as on the outer and inner sides. In the lowest portion of this area, in the region of the *condylus externus femoris*, the skin is slightly atrophic and is like "crumpled cigarette paper." There are no subjective sensations. On the 20th of January, 1905, when the patient again visited the hospital, the affection was appearing on the inner side of the right thigh, in the form of two bands of a red color, bordering on violet, of about three centimeters in width, which were already infiltrated. Scattered, reddish, infiltrated areas of different sizes were also apparent at the periphery of the superficial infiltration of the right thigh.

This case shows that the affection need not necessarily begin on the "*Acra*," as is indeed the rule, but that it may, in certain instances, begin higher up. I have seen a case analogous to the two that have just been described in the practice of one of my colleagues, but shall not describe it here, as it is simply a repetition of what has been already said. Leven, also, has observed a similar case.² The change could begin on the elbow, also, as well as in the region of the knee, as in this case.

The further course of Case 7 of my first paper on acrodermatitis proved definitely that the affection begins with an inflammatory infiltration. In this case, three years after the first observations, in the year 1904, the affection had become quite atrophic, both on the back of the left hand, in a band form on the forearm, and again in a superficially infiltrated area on the elbow. At this time, without assignable cause, there appeared a new, perceptibly infiltrated area, bright red in color, easily movable, about the size of a man's hand, in connection with the earlier change on the outer aspect of the upper arm, which gradually merged in the sound tissue at the periphery. There were no subjective symptoms. *A gradual transition into the healthy tissue is to be emphasized here, a feature which is especially characteristic of the affection with which we are dealing.*

² *Archiv f. Dermatol. u. Syph.*, 1903.

This patient developed, also, in the year 1904, a small, red infiltration on the forehead, above the root of the nose. This development of acrodermatitis "by leaps" is of frequent occurrence on the extremities, but I have only seen it jump from the extremities to the face in one other case besides this, and in that the localization was the same.

So much for the further course of the two cases. Now as to the question which has been raised whether acrodermatitis chronica atrophicans is an independent affection, or should be considered identical with scleroderma. As I have already said in my first paper, such a confounding is only possible in the atrophic stage, as might also be the case with senile atrophy. In the inflammatory stage, on the contrary, the differential diagnosis offers no difficulty. Scleroderma certainly also begins with an hypertrophy, yet this is very different from that of acrodermatitis. Scleroderma does not show, clinically, an inflammation, although there are exceptions to this rule. Furthermore, sclerodermic skin is as hard as a board, and is always bound down to the lower tissues; in acrodermatitis, the skin feels almost soft and is never bound down. Lesser, indeed, showed a case at the International Congress in Berlin in 1904 in which, at least in places, the skin was bound down; but unfortunately I could not examine the case sufficiently to convince myself of it. I would suggest that possibly there was a combination of both diseases, the acrodermatitis having been added to a scleroderma. Also the localization of the two diseases must be considered. Scleroderma can affect any part of the integument; acrodermatitis cannot; it comes on the extensor side of the ends of the extremities and ascends gradually over the extremities. When the band, described in my first article, is present, it also begins with the inflammatory stage, is quite soft, and is not bound down to the lower structures. For every physician who has seen both affections, sufficiently important signs of differential diagnosis are present to enable him to distinguish between them in every case that is not complicated. As to the clinical appearance of the skin in the inflammatory stage, it is to be remarked that in Case 7, the further course of which I have described, the bright red color of the freshly inflamed parts was permanent. I have observed this, also, in other cases. The areas do not take on a more bluish-red color until the later stages. This change has also been recorded by Leven.

TRICHORRHEXIS NODOSA.

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THIS affection, which is characterized by a peculiar nodose condition of the hair, was first described by Beigel⁴ in 1855, and probably first recognized as a peculiar and new type of disease by Wilks³⁴ in 1852, but not recorded by that investigator until 1857. Devergie¹¹ and Luigi Billi,⁵ each described the same, and which they believed an hitherto undescribed affection, and from the resemblance the affected hairs bore to a feather, termed it trichoptilosis. Erasmus Wilson³⁵ promptly confirmed Beigel's observations in 1867, and named the disease, "Fragilitas crinium," a term that has been subsequently used by Duhring and others. In 1876, Kaposi¹⁷ suggested the term *Trichorrhexis nodosa*, which was approved by Schwimmer in 1878, and has found for itself a ready, general and almost exclusive acceptance.

The nodose condition of the hair is directly the result of the longitudinal splitting of the shaft of the hair, for a comparatively short distance, which readily permits the shattered cortex at the affected point to bulge equally in all directions (Fig. 2) and is often accompanied by a complete or incomplete transverse fracture (Fig. 4), which gives the hair the appearance at the affected point, of two brooms thrust into each other end to end.

The best defined cases have occurred chiefly in the mustache and beard (Spiegler,³⁰ Hodara¹⁶), but the condition has been most commonly observed and more frequently reported upon the scalp of females (Bruhns,⁷ Peterson²⁴). Raymond²⁶ states that it is found in the hairs of the labia majora in 40 to 60 per cent. of the cases examined, whereas DeKeyser⁹ could not establish one case in 106 genital examinations. Occasional cases occur in the hair of the pubes, axillæ and elsewhere.

The disease is widespread, and is accorded to prevail more commonly in Turkey than elsewhere. Pringle²⁵ describes a case due to an Oriental infection in a patient who visited Salonica, and Peterson²⁴ was likewise inclined in a similar case, until a personal investigation revealed to him that a foreign infection had not been necessary in 200 other cases examined in St. Petersburg. Hodara¹⁶

of Constantinople, whose investigations have been chiefly responsible for its reputed prevalence in the Orient, states that it is prevalent in the far east only in its more common form, which affects principally the scalps of women, and can scarcely be distinguished from dandruff, and best after the frequent use of a fine comb. Bruhns⁷ in describing a few typical cases, likewise remarks that only the faint powdery form, is frequently encountered in the scalps of women in Berne.

From these varying reports, it is evident that the affection exists in a true form, *trichorrhexis nodosa vera*, which is infrequently encountered irrespective of locality, and a physiological, as we shall see later, almost normal form, *pseudo trichorrhexis nodosa*, which though bearing some resemblance, is a distinctly different affection, and upon examination and inspection is almost invariably present upon the scalp, beard and elsewhere, when the hair is allowed to attain considerable length and the free ends remain uncut for a considerable period of time. The former is undoubtedly strongly predisposed or directly caused by some pathological process, whereas the latter is simply the result of some more natural process, probably of physiological nature. To the former class can also be properly added the trichorrhexis which attends the peculiar, separate type of nodose disease of the hair, called monilethrix, as reported by Beatty and Scott, Bulkely, Arnozan, Hallopeau, Lesser, and others, where the mechanical splitting and transverse fissuring is strongly predisposed by the constrictions of the alternate spindle-shaped enlargements. The trichorrhexis nodosa which has been observed by Blaschko to accompany the hairs at the border of the patches of alopecia areata, permits a more doubtful classification; it should properly, irrespective of a striking structural similarity, be regarded as a predisposed complication, rather than an affection per se. I have personally been unable to confirm Blaschko's⁶ observation, in the examination of a number of cases of alopecia areata. Most of the cases which I examined were long-standing, and were under prolonged treatment, consisting of topical applications of trikresol or chrysarobin. The denuded areas were very smooth and not studded with short broken off hairs, presenting on the whole, a stage probably unfavorable for a complicating trichorrhexis nodosa. Others however, which were untreated, actively spreading, and of varied duration, were likewise of a negative character.

Probably an additional type, indigenous to Colombia and called Piedra (stone) by the Spaniards, because the nodules on the hair

possessed stony hardness to the knife and imparted a peculiar grating when cut or scraped with a comb, was described by Desenne¹⁰ in 1878, and though its identity with trichorrhesis nodosa was admitted by Malley¹⁹ and others, it was disputed by Cheadle and Morris,⁸ who attributed to it a purely extraneous parasitic origin.

Many of the investigations of trichorrhesis nodosa vaguely intimate, without attempting to directly maintain or establish, both a physiological and a pathological character to this affection. This true and false rôle of trichorrhesis nodosa has been suspected, but not clearly elucidated by numerous investigators; if definitely established it would aid materially in removing many discrepancies and uncertainties which attend this affection, and obscurely cloud its true nature and character.

A mechanical cause for the affection has been attributed by a number of authors, notably Wolfberg,³⁶ Barlow,² Bruhns,⁷ Richter,²⁸ and Panichi.²³ Whitla,³⁷ believes it to be present in the hairs of almost all long beards, and Abramowitsch,¹ describes a case in which there was no clinical evidence of a characteristic nodose swelling, and the microscopical lesions were indicated clinically by faint white swellings on the shaft of the affected hairs. Additional evidence that trichorrhesis nodosa can be the result of purely mechanical causes, irrespective of directly exciting or predisposing influence is afforded by the casual examination of the bristles of old tooth brushes, not necessarily those used by patients having the affection (as originally reported by Ravenel, Blaschko, Saalfeld and Jadasohn), but hair, nail, shaving and clothes brushes (Barlow,² Bruhns⁷) used by individuals free from the disease and where a direct infection was highly improbable.

A large number of investigators (Hodara,¹⁶ Spiegler,³⁰ Raymond,²⁶ Markusfeld,²⁰ Peterson,²⁴ Essen¹⁴) attribute to the affection an infectious and parasitic cause, and have endeavored to establish such an etiology by means of painstaking and carefully conducted histological and bacteriological investigations. Germs have been isolated both from cultures derived from diseased hairs and from the hairs themselves, to which pathogenic properties have been attributed. Considerable disparity exists in the various descriptions of the causative micro-organisms and its pathogenic character has not as yet received very general acceptance.

The clinical evidences of the well-defined true cases, are quite striking and usually contrast sharply with the ill-defined character of pseudo forms. The individual nodes, are quite rounded, well

formed, and stand forth prominently from the affected hair. They are usually multiple, and are generally separated from each other by a short, uniform interval of hair shaft (Fig. 1). Their marked prominence usually commands the first attention of the patient, and their prompt detection requires no careful degree of inspection. They are often mistaken even by physicians, in whom the affection is not at all uncommon (Spiegler,³⁰ Richter,²⁸ Wolfberg,³⁶ Kohn¹⁸), for nits. The nodes render the hairs very brittle, so that a marked alopecia accompanies the affection and assists in directing the attention of the patient to the condition, and according to Hodara¹⁶ may persist to such an extent, as to entirely arrest the growth of hair.

L. H., aged twenty-five years, physician, presented himself on February 19th, 1904, stating that in looking in the mirror that morning, he took note of a number of small roundish particles adherent to the hair of his mustache, and which he at first mistook for nits. He was at a loss to account for their presence, and unable to satisfactorily explain their nature. The hair of his mustache at the time of the examination was thick and stubby, and rather closely cropped, brown in color, and somewhat straggly and unkempt in appearance, showing no particular evidence of mechanical insult, from training or manual manipulation. The hairs of the middle third of the right side were somewhat thinned out, and by far the greater number of nodose hairs were found in this region, diminishing in number, relatively with the distance towards either extremity, so that only a few isolated infections were present over the right extremity, and relatively few over the left. His mustache had been standing less than three months, and prior to that time his lip had been close-shaven for almost two years. In August, 1902, while an interne of the Cincinnati Hospital, he suffered a severe inflammatory infection of the upper lip on the right side, over the present site of the alopecia, and where the trichorrhexis nodosa is most marked. It was pronounced a carbuncle and was attended by considerable swelling of the entire lip; a cicatrix marks the site where it was freely incised. The affected hairs bore all the clinical evidences and characteristics of a true trichorrhexis nodosa, and the free ends under the microscope showed the usual characteristic camel's hair brush splitting (Fig. 3), and the nodes the dove-tailed whisk-broom appearance (Fig. 2). There was no itching, or other forms of subjective manifestations, and the skin was to all appearances perfectly normal.

Some of the hairs, pathological and perfectly normal, were

removed, bleached with peroxide of hydrogen, stained with methylene blue, decolorized with 2 per cent. pyrogallie acid, or 5 per cent. resorcin solutions, and counter-stained with picric acid, after the various methods of Pick, Unna, Hodara *et al.*, for the presence of a pathogenic germ. In most of the hairs, irrespective of the presence or absence of nodose lesions, various forms of bacteria, long and short bacilli, large and small cocci, isolated and grouped could be readily distinguished. The clearest types could be found in or near the free epithelial cells, on the external surface of the hairs. These cells and their germs were usually quickly detached by the manipulation of micro-millimeter screw in focusing the oil-immersion objective, which rested closely on the cover-glass, and floating away in the balsam, in which the specimens were imbedded, baffled micro-photography and prolonged study.

The nodose areas stained more deeply, not by reason that it contained relatively more germs (Hodara), but because they were more permeable to the stain. These areas were thickly studded with minute, dark, sharply defined, irregular particles, even in unstained specimens, which upon close examination proved themselves to be not germs, but particles of pigment, which had escaped from the ruptured cortex, and were loosely attached to surrounding objects, lying apparently free. No culture experiments were attempted, and in so far as the bacteriological investigations permitted, no special or distinguishing germ was found, which by way of marked predominance or constancy, gave any evidence of possessing pathogenic properties. The clinical and microscopical examination of a number of well advanced cases of trichorrhexis nodosa on the scalps of women showed practically the same findings, and yielded nothing of special interest or importance.

A microscopic examination was also made of hair from several cases of pseudo trichorrhexis nodosa. Although there was considerable histological similarity, the longitudinal swelling was not as uniform or complete, extending along the hair more irregularly and forming nodes which were more irregular in form, elliptical, rather than round. When transverse fission occurred it was often oblique but not infrequently transverse, and otherwise indistinguishable in its general appearance from forms in the advanced pathological cases.

In order to determine whether or not the condition was purely the result of mechanical influence, unsuccessful attempts were made to induce the condition in normal and predisposed nodose hairs, by

repeated bending and unbending the hairs at a given point, combined with compression, and lastly by grinding up a number of hairs in a mortar with a pestle (DeKeyser). The latter method produced microscopic lesions that somewhat resembled those of trichorrhexis nodosa, but the microscopical appearance was far different.

The hairs ruptured and were irregularly fissured (Fig. 5) and the cortex was freely separated from the remainder of the hair (Fig. 6). In no instance could the "camel's hair brush splitting" (Fig. 3) or "dove-tailed whisk broom appearance" (Fig. 2) be induced. The pigment of the hair, however, was freely released in minute, finely divided particles.

The direct cause or the exact nature of this affection, as evidenced not only by the case in question, but by cases in the literature is still an unsolved problem. At the present time opinion is divided as to its parasitic or non-parasitic nature. The strongest advocates for the parasitic theory are Hodara,¹⁶ Spiegler,³⁰ Essen,¹⁴ Raymond,²⁶ and Markusfeld,²⁰ and their bacteriological observations and investigations, with all their discrepancies, offer the chief evidence of a parasitic cause. According to Hodara,¹⁶ the direct cause is a bacillus, constantly present in infected hairs, which readily grows upon various culture media under varied conditions. He states (p. 184) that it occurs "in form of pseudococci and pseudofungi, regular and irregular rods, spheres, hollow-spheres, bottle and sausage-shaped forms, in shapeless clumps of varying size," and which he characteristically calls "bacillus multiformis trichorrhexides." He reports successful inoculation experiments from cultures. Spiegler³² describes a somewhat similar bacillus to which he ascribes equal pathogenic importance, and believes it to be identical with Hodara's bacillus. He also reports³¹ successful inoculations, and successful cultures from inoculations, and states that the germ is plainly visible in the hair. Essen¹⁴ describes a bacillus, which differs from Hodara's (an observation which is also personally confirmed by Spiegler,³⁰ p. 78), and states that only in cultures and not in the hair can it be distinctly recognized. Pure cultures were readily obtained by immersing the hairs in absolute alcohol twenty-four hours, not five or six days, as according to Hodara, and states that if the hairs are immersed longer than seventy-two hours, the cultures remain sterile. Inoculations from cultures were successful only *in living human hair*, and cultures from inoculated hair were negative. Markusfeld²¹ describes a bacillus visible in the hair, *identical with Spiegler's*, but not with

Hodara's¹ or Essen's. Detached hairs placed in bouillon cultures were infected in six weeks. Raymond ascribes the cause to a diplococcus.

It is apparent from these reports that the evidence, thus far adduced for a parasitic cause, lacks unanimity, and is so much at variance with itself, that in the absence of more positive information, it is untenable. The multiple character of the germs which normally invade the hair, the irksome character of the varying conditions under which the examinations are made, and the unreliable nature of bacteriology, even under more favored conditions make it appear improbable, that even though of a parasitic nature, a well defined bacterium can be clearly and definitely established as its true cause. It seems highly improbable that bacteria will invade and materially affect, in the absence of the usual favoring influences of heat, moisture and good culture media, such firm, resistant and non-succulent material as hair substance. Hair in this respect bears an analogy (Heidingsfeld¹⁵) to nail substance, the deformity of which in onychomycosis is due not to the action of the fungus upon the nail substance, but upon the nail forming matrix. Bruhns⁷ states (p. 49), "that the methods which have hitherto been employed in producing pure cultures of a micro-organism for trichorrhæxis nodosa, either permit a multitude of contaminations, or seriously impede every form of bacterial growth so that the results, must be accepted with great reservation." Blaschko has distinctly pointed out the difficulties encountered in the detection of bacilli in stained hair specimens, and the ease with which particles of kerato-hyalin may be mistaken for bacteria. Other theories which have been advanced for the cause of trichorrhæxis nodosa, especially the distension and bursting of hair from internally formed gases (Beigel⁴), or fat (Eichhorst) scarcely deserve more mention. Neumann's²² theory of a rapidly drying cortex, has been disproven by Blaschko and others, who have failed to produce the lesion when the hairs were manipulated while subjected to artificial heat. The process is not completely or satisfactorily explained by a purely mechanical cause, as advanced by Wolfberg,³⁶ Panichi,²³ and Richter.²³ Wolfberg observed the condition in his own beard and claimed that he was able to induce it over normal areas by persistent manipulation of the hair. Panichi observed the condition in a young man, whose scalp had been subjected to five months of shampooing and applications of ointment for a seborrhœa capitis, and the condition promptly disappeared with the suspension of treatment.

Richter also observed the condition on himself and states that his recovery was prompt as soon as he discontinued the use of parasiticides and mechanical insults, by simply oiling the affected hair. Bruhns,⁷ DeKeyser,⁹ Beck,³ believe the cause to be mechanical, but predisposed by malnutrition or trophic influences. Bruhns reports two cases that were predisposed by my œdema. DeKeyser believes that mere mechanical causes are insufficient, because when hair was rubbed in a mortar the characteristic lesions were not produced. Beck reports a case occurring in the pubic hair of a physician complicated by a local eczema. Recovery ensued when the eczema was relieved and the hair removed. Beck states that the cause is difficult to determine, because the associated influences are multiple, being mechanical, nutritive and parasitic. The most interesting and instructive case from a purely etiological standpoint is probably Rauber's,²⁷ who reports node formation, accompanied by loss of color and smoothness of hair, with every epileptic attack. In this case if the observations were correctly taken, a trophic cause was largely, if not entirely, responsible for the condition.

My personal observation and study leads me to believe that it is also the chief etiological factor in the case reported in this paper. The preceding carbuncular inflammation, was more than a mere coincidence, by reason of its closely analogous location and distribution, and must have directly paved the way for the subsequent trichorrhexis nodosa. There are no grounds to assume a mechanical cause; whatever influence of this character was exerted must have been abnormally small, and entirely secondary to a more powerful predisposing influence.

A parasitic or infectious nature, aside from the negative and rather unsatisfactory bacteriological examination, could not be fairly attributed. I concur with Bruhns⁷ when he states that the present methods of bacteriological investigations have not and in all probability will not, clearly and satisfactorily establish a parasitic cause for an infection of this character. The short duration (the hair had been standing scarcely more than two months after its first appearance, and has persisted after prolonged intervals of careful shaving) speaks likewise for a non-infectious nature; moreover, it seems rather improbable that bacteria would attack living hair, when attached to the scalp, and leave it practically unscathed when once removed. It is rather remarkable that the hair, after it is once removed remains unchanged in color, form and appearance, almost indefinitely, the hair of the Egyptian mummies for example, has

remained entirely unchanged after the lapse of thousands of years, whereas *in situ* it is subject to graying, and similar inexplicable influences. There must be a close connection between the hair and the body at large, more intimate than external influences, and directly or indirectly, subject to all the changes which can affect the general metabolism. This is well shown in the marked alterations which the hair shows in wasting diseases, and I have personally observed a diminution of one-fourth to one-third the diameter of the hair after severe diphtheria, typhoid and scarlet fever. There is no question but that a marked trophic influence is exerted on the hair during the process of its development and it is not at all improbable that it is likewise maintained throughout its entire extent, as long as its continuity is preserved, as evidenced *prima facie* by graying of the hair, which involves a process of change which thus far has remained unsolved. In this transformation the proximal portion is first involved and when such a hair is microscopically examined, the proximal portion of the shaft is devoid of pigment, the intermediate portion, which is apparently undergoing active change, contains little or no cortical, but a relatively large amount of medullary pigment, whereas the unchanged distal extremity contains the usual relatively larger amount of cortical pigment.

Can such evident changes be satisfactorily explained on other than active influences, physical or chemical in character, prepared and carefully placed by the general metabolism, and permeable to the very extremity of the affected hair? If hair is capable of such changes, irrespective of external influences, it seems highly probable that trichorrhexis nodosa is readily explicable on similar theoretical grounds. The trophic or central origin of trichorrhexis nodosa is not a mere hypothesis. The bulk of clinical evidence is largely in its favor, as evidenced by well defined cases which promptly followed attacks of epilepsy, infections, myxædema, and other predisposing influences. Such an etiology is likewise not at all improbable from a purely bacteriological standpoint, in spite of a prodigious amount of careful and painstaking investigation, when the lack of uniformity and unanimity in results and the unfavorable character of hair for such study are considered. The absence of a marked clinical infectious, or contagious character, together with the observation of most investigators that inoculation is successful only *in vivo*, does not give much credence to a parasitic etiology. A mechanical causation, on the simple ground of excessive manipulation resulting from personal over-attention, appears untenable. An excessive degree of

manipulation has not been observed in most cases, and an excessive degree of personal attention in this direction does not predispose the affection. The mechanical attempts to artificially induce the condition were negative. Its reputed occurrence in old long-used brushes does not attribute a purely mechanical causation, because a similar state can be readily observed in new ones, and it is not improbable that the hair of animals share the same etiological influences, of trophic or central nature.

To briefly recapitulate, trichorrhexis nodosa is both a normal and a pathological process. It is universally present in long uncut hair as a normal condition and is probably nature's method of physiologically arresting and stunting an otherwise unlimited and eventually cumbersome overgrowth of hair. When present to excess in a predisposed individual, it becomes a pathological process and abnormally stunts the growth of hair; the nodes are more prominently wounded and are often multiple, separated from each other by uniform intervals of normal hair shaft. Its etiology has been variously attributed to trophic, parasitic and mechanical influences. A mechanical causation is improbable on purely clinical grounds, and is incapable of artificial demonstration. The condition in brushes can likewise not be attributed to purely mechanical causes. A parasitic causation is not commensurate with the evidence thus far adduced from clinical studies and bacteriological investigations. The most rational explanation of its etiology from physical, bacteriological and clinical investigation, and its analogy to kindred and associated changes in the hair rests in trophic influences, emanating from the metabolism at large, and permeating the hair to its ultimate extent.

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DESCRIPTION OF PLATES.

- FIG. 1. Trichorrhexis nodosa. Multiple nodes are shown separated by uniform intervals of normal hair shaft.
- FIG. 2. Trichorrhexis nodosa. Bulging of the shattered cortex and the early appearance of the "dove-tailed whisk-brooms."
- FIG. 3. Trichorrhexis nodosa. Camel's hair brush splitting of the free ends.
- FIG. 4. Trichorrhexis nodosa. Incomplete fracture of the affected hair shaft.
- FIG. 5. Hair mechanically shattered. Unsuccessful effort to induce a characteristic node by means of a mortar and pestle.
- FIG. 6. Hair mechanically shattered. Cortex stripped from the hair and pigment lying free.



FIG 1.



FIG 2.



FIG 3.



FIG 4.



FIG 5.



FIG 6.

CREEPING ERUPTION: REPORT OF A CASE.

By J. B. SHELMIRE, M.D., Dallas, Texas.

Read before the State Medical Association of Texas, Houston, Texas, April, 28th, 1905.

THE parasite supposed to cause this rare skin affection, is the larva of a dipterous insect. It belongs to the family of the *Æstridæ* or bot flies. There are upwards of sixty species of the *Æstridæ* and as many as twenty-four are found in North America. The question has not been definitely settled, yet the opinion is that the larva causing creeping eruption is the *Gastrophilus hæmorrhoidalis*. This species deposits its eggs on the lips and nose of the horse and its larva attach themselves to the bowel and also about the anus.

Our text-books give a very meagre description of this interesting disease. Hyde and Montgomery, in the 1904 edition of their work on Skin Diseases, under the heading, "Larva Migrans or Gastrophilus," have the following: "Lee, Crocker and other observers describe a serpiginous disorder occurring in Austria, Russia, Arabia and Belgium. The larva having been deposited by the mother insect in an exposed part of the skin (buttock, cheek, thigh, trunk), travels beneath the surface at the rate of an inch or more daily, in curves and gyrations, its travels extending over months, and in one instance for two and a quarter years. Its gallery is marked by a reddish line, fading in a few days at 'the passive end,' while the larva is from a quarter of an inch to an inch beyond the active end. Its course is arrested by suppuration which does not seem to occur spontaneously. The parasite may be located as a dark point where the skin is pressed as in a bioscopy. The effective treatment has been by excision."

Under the title of "A Case of Creeping Eruption," Dr. J. R. Lee was the first to describe this disease. This paper was read before the Clinical Society of London in 1874. Lee reported a second case in 1884 and then suggested that the eruption might be due to a parasite. In neither of his cases was he able to find the parasite. Crocker reports a case under his observation where the larva was on the march for two and a quarter years, when it was

apparently killed by a suppuration in the neighborhood of the track. The larva itself never excites suppuration. It is only recently that this disease has come to the notice of American dermatologists. In 1902, Van Harlingen reported three cases of "Creeping Larvæ in the Human Skin." He was probably the first American to report a case of this disease. In June, 1903, Stelwagon reported his first case, and in June, 1904, added another.

In May, 1904, Hamburger, of the Johns Hopkins Medical School, reported an interesting case in an imbecile boy aged four years. In his paper before the American Medical Association in June, 1904, Stelwagon claimed that these were the only cases reported by American observers. More cases have been seen in Russia than in any other country, and it is an astonishing fact that none but the Russian cases of creeping eruption have furnished parasites of a dipterous nature. The Russian observers have found the larvæ while others have failed. They identify it as the larva of a dipterous insect, order *Æstridæ*, of the genus *gastrophilus*, species undetermined. The larva is spindle-shaped, segmented and from one to one and a half millimetres long.

Treatment. Subcutaneous injections of carbolic acid and iodine solution failed in Crocker's case as also did all external applications. Hamburger excised a small piece of skin at the active end of the line in his case, stopping the disease but failing to find the parasite. Stelwagon cured his first case by a polytherapeutic method which left him in doubt as to the effective agent. In a second case the application of a minute droplet of nitric acid made to the suspected site of the parasite was followed by complete cessation of further progress. The Russian observers say that the parasite can be located as a dark point by pressing the blood out of the skin with a lens. Excision of the portion of skin beyond the active end is the method generally advised, but as in one of Stelwagon's cases, this method will be objected to by many patients. The simple and effective method in my case is not mentioned in the literature I have read on the subject. My first attempt was a failure, because I could not locate the parasite. On the second visit of the patient a little black dot, indicating the position of the parasite was made plainly visible by pressure with a magnifying glass. The dot was fully one-quarter of an inch ahead of the active end of the line. Destruction of the parasite was accomplished by electrolysis which will be explained in the report. My case appeared on the person of Dr. J. M. Townes, of Joshua, Texas, aged fifty-nine years. The doctor

kindly furnished me with a history of his case and I shall give it to you just as it came from him.

History. "On the 12th day of June, 1904, there was a small sore on the left side of my ring finger-nail on the right hand. On the 13th, there was a small red line as though a mole had travelled from this sore, across the end of said finger and around to the right side of said nail. On the 15th, there appeared a red line up to the third joint on said finger. On the 16th and 17th this same red line continued up said finger nearly to the second joint. On the 18th and 19th it crossed over to the left side. On the 20th and 21st it was up above the second joint about half an inch and nearly on top of finger, but a little to the left. On this day Doctors Self and Alexander, of Cleburne, thought they had located the parasite, or little devil, as I termed him (for he was a very devil to me), and introduced an electric needle, but failed to kill the parasite. I think the electricity paralyzed him to some extent as he did not move or travel any more for nearly one week. On the 25th he reappeared about one inch below the second joint and still on the left side of said finger. Then for the next week he made a zigzag route, up and down, all the time on the same phalanx of the same finger. I cut in after him and burned with carbolic acid every day, but to no effect. On July 1st, I went to Dallas to see Dr. J. B. Shelmire, and he too introduced the electric needle but missed him. He now moved from top of or back of second phalanx to the palmer side of said finger, and on July 6th, I went back to see Dr. Shelmire and he located the gentleman. He introduced an electric needle just below the second joint and, I think, killed him, as there has been no further travels and my finger is now quite well, thirty-five days after the operation."

On July 1st, when the doctor first visited me, there were a few linear scabs on the finger made by the cutting and burning efforts to destroy the parasite. On the right ring-finger, left side, on a line with the third joint, was the fading or passive end of a slightly raised red line. From this point it ran straight up the side of the finger to near the second joint. Here it turned at a right angle and passed across the finger, stopping rather abruptly on the right side, where it made another right angle turn going upwards above the second joint. The line was perceptibly raised and about one-sixth of an inch broad. It travelled from one-quarter to one and a half inches in twenty-four hours, and grew brighter and seemingly more raised toward the upper extremity. Under a magnifying glass there were points where slight vesiculation was present. About the active

end of the line there was always considerable pruritus. At this visit I was not able to see the parasite, but used the electric needle, introducing it half an inch below the active end and passing it half an inch beyond that point. The electrolytic process had no effect upon the parasite, for he was pursuing his journey on the following day. On July 6th, as stated by the doctor, the parasite had gone to the palmer surface of the finger. The line ended abruptly just below the second joint. After thoroughly scrubbing the surface, a magnifying lens was pressed against the skin, blanching the structures beneath. About one-quarter of an inch below the active end, and on a line with the same, a dark speck was plainly visible. The needle was passed to this spot and surrounding tissues. Current used was sufficiently strong to produce a decided electrolytic effect. After three weeks a scab was thrown off nearly one-quarter of an inch in diameter, embracing the entire thickness of the skin. A macroscopic examination of this scab did not show any evidence of the remains of a parasite. A recent communication from the doctor informs me that he has had no further trouble.

EDITORIAL.

THE AMERICAN SOCIETY OF SANITARY AND MORAL PROPHYLAXIS.

WE note with much gratification the recent formation in this country of the Society of Sanitary and Moral Prophylaxis. The object of this society, as set forth in its constitution, is the study and application of every means—sanitary, moral and administrative—which promise to be most effective in limiting the spread of diseases growing out of the Social evil.

Whatever may be the ultimate expansion of this Society's work, it is proposed that it shall begin along the lines of education and treatment, employing such measures as may, in the judgment of the Society, be deemed most available and promise to be most effective for this purpose.

That there is need, and a most urgent need for the initiation of such a movement is evident from the consideration that this large and important class of infections, which, next to tuberculosis, and, perhaps, more than tuberculosis, constitutes the greatest social

plague of modern times, remains absolutely exempt from any attempt at sanitary control. The sanitary nihilism which represents the attitude of the Health officials toward these diseases has long been a reproach to the medical profession, and it is confidently hoped that the inauguration of this prophylactic movement which marks a new era in the progress of preventive medicine in this country will be justified by its results.

It will be admitted that the problem of prevention of these diseases is most difficult and delicate involving moral and social as well as medical questions. It is essentially a socio-sanitary problem, complicated with all the complex interests of our social life.

The fact that venereal diseases are not susceptible to the application of the sanitary methods ordinarily employed for the control of infectious diseases is not a valid argument for the continuation of the policy of inaction which has hitherto prevailed. Rather, it indicates the necessity of modifying or differentiating these methods with especial adaptation to the peculiar nature of these diseases. In the cure of disease we do not rely solely upon drugs and in the prevention of disease we should not restrict our efforts to the employment of purely medical measures. We should avail ourselves of all the influential agencies of social life which may be utilized in the correction of the conditions under which these diseases are spread. In other words, in dealing with a class of diseases for which ignorance, immorality, and bad socio-economic conditions are largely responsible it is essential that sanitary measures should be reinforced by moral measures, we should enlist the coöperation and aid of all the social forces which work for the upbuilding of the physical as well as the moral health of the people. Hence the composite character of the Society of Sanitary and Moral Prophylaxis, embracing in its membership representatives of the learned professions,—medicine, the law and the clergy—as well as sociologists and philanthropic men generally. This movement has the most valid claims to the coöperation and active support of the entire medical profession of this country and it is hoped that branch societies will be formed in the different States. Certainly, it will be allowed, anything is better than the present indifferentism on the part of the public and inaction on the part of the medical profession—the expectant method has no place in the policy of preventive medicine.

P. A. M.

SOCIETY TRANSACTIONS.

NEW YORK DERMATOLOGICAL SOCIETY.

332d Regular Meeting, March 28th, 1905.

DR. GEORGE H. FOX, President.

Symmetrical Cutaneous Atrophy, A Case of. Presented by Dr. MEWBORN.

THE patient is forty-six years old, a widow, native of Sweden. She has three children living and has had one miscarriage. There is no history of syphilis, rheumatism, or other diseases. Family history negative.

Her present trouble began about four years ago with a persistent redness of the backs of both hands. Later on the elbows, ankles, and knees became affected in the same manner. At present there is a perfectly symmetrical atrophy of the skin in these regions. On the hands the patches cover the dorsal surfaces and knuckles and fade off imperceptibly into sound tissue. The skin in these patches is thinned, reddened, glazed and allows the superficial veins to be clearly seen. In the center of the patch on the left hand are deeply seated sclerotic areas of a lighter color.

The patches on the elbows, knees and ankles are more circumscribed and sharply marked. On the dorsi of the feet the skin is scaly and more of an ichthyotic character.

The patient has attacks of faintness or dizziness but never loses consciousness.

Dr. FORDYCE said that Dr. Mewborn's case illustrated a well-marked clinical condition of which he had seen five or six cases. In all of them the affection had involved the dorsal surfaces of the hands, the elbows, the ankles and knees, leaving the intervening skin intact. He believed it to be of the same nature as the cases described by Buchwald, Bronson and others, where the entire surfaces of the extremities were atrophic. The affection, in his opinion, was due to an involvement of the smaller vessels of the skin.

A Case of Horn Cysts. Presented by Dr. ROBINSON.

Woman, aged fifty-five, married. About five years ago, according to the statement of the patient, small pinhead sized lesions appeared on the side of the neck and extended to the back of neck and then up the left side of the face and chest and also on the arms, especially over the elbow joints. The lesions itched very much. At present, the eruption occupies the forehead, cheeks, neck, upper half of the anterior surface of the

thorax, and extends several inches along the upper part of the posterior surface on both arms to the wrists. The lesions are very numerous; in fact, there are thousands in numbers, isolated pinpoint to pinhead in size, even with the surface or elevated, many of them being about one-eighth of an inch above the general surface. The non-elevated lesions appear as sharply limited, whitish in color, with a shining surface and presenting many of the characters of milium, except that follicular orifices could be seen in the centers of many of them. The elevated lesions were sharply limited, somewhat acuminate and, in quite a number, the follicular orifice appeared as a black point, like the black point of an ordinary comedo. By pressure a comedo-like plug could be expressed from these lesions. Some of these elevated lesions bore some resemblance to the *keratosis follicularis contagiosa* of Brooke, but the spine formation was not so marked. Sections showed horn collections within the hair follicle and sometimes a comedo-like retention of sebaceous matter with the horny cells. Several lesions have been removed, and the case which I regard as a very peculiar one will be reported at length after careful observation and study. The case is temporarily reported as one of horn cyst formation.

Dr. KLOTZ thought the case to be one of benign epithelioma or of adenoma sebaceum, but considered a microscopical examination essential for the diagnosis.

Dr. FORDYCE said that Dr. Robinson's patient with horn cysts recalled a case he had seen in an infant where small lesions had developed on the extremities and in the mouth. They were first vesicular, then warty. One had been excised and showed on section typical subepidermic cysts, containing concentric layers of horny epithelium.

**Lupus Vulgaris, involving the Neck, Arm and Thigh. Presented by
Dr. FORDYCE.**

The patient was a man, twenty-four years old, a native of Russia. Ten years ago the disease appeared on the right knee and gradually involved the skin over the anterior and lateral aspects of the thigh, hip and buttock. It appeared later on the arm and neck and had now implicated the greater part of the skin from the elbow to the shoulder, as well as a large area over the right side of the neck. The lupus infiltration had disappeared in a great measure from the thigh leaving superficial atrophy, with here and there foci of active disease, with a few scattered nodules in the scar tissue. Aside from the extensive involvement of the cutaneous surface the case was interesting because of the spontaneous involution of the lesions from the thigh.

Dr. KLOTZ said that he considered it advisable in such refractory cases of lupus to resort to the injections of the old tuberculin. They would not cure the disease, but produce sufficient changes in the tissues to render them more

amenable again to other methods of treatment, and particularly to the X-rays. Also (in answer to a remark made by Dr. Morrow, that the tuberculin treatment had been entirely abandoned in Europe): from what he could gather from the periodical literature, particularly that of Germany, the old tuberculin was now more frequently used again, not so much for therapeutic as for diagnostic purposes, and in order to produce a change in the conditions of the diseased tissues.

Lupus Vulgaris, A Case of. Presented by Dr. Fox.

The patient was a woman, forty-two years of age, giving a history of tubercular glands in the neck which first developed about twenty-five years ago. The glands back of the right ear first broke down, then the glands in the front of the neck became affected and scaly, and red spots appeared on the left knee and right shoulder.

Ten years after the first lesions in the neck the present skin lesion began on the nose and on both cheeks.

At present the disease covers the entire nose, both cheeks and neck and from its crusted appearance might suggest syphilis at first glance. A photograph taken fifteen years ago appears in Dr. Fox's Photographic Atlas of Skin Diseases under the title of Lupus Serpiginous. Though the eruption has steadily enlarged since that time, the patient has gained fifty pounds in weight and enjoys much better health.

Dr. MEWBORN suggested that a few injections of salicylate of mercury be given as a therapeutic test to exclude any doubt of a syphilitic nature in the lesions. The serpiginous character of the lesions on the leg suggested syphilis more than lupus.

Dr. KLOTZ, referring to the remarks made by Dr. Mewborn, said, that at the time when the treatment of lupus by mercurial plaster was in vogue, many undoubted cases of the disease were, if not cured, certainly greatly benefited by the mercurial plaster and iodides internally. Therefore, favorable effects of mercurial treatment would not be considered a criterion of the syphilitic nature of the lesions.

Lupus Vulgaris, to Show Effects of Treatment. Presented by Dr. Fox.

The patient, Anna S., is thirty-one years old, and has had lupus since three years of age. Nineteen years ago when the lesion was not larger than a five-cent piece a total excision was performed but the disease soon returned. Five years ago the disease covered the cheek and nose; at this time excision and grafting was done and again three years ago a plastic operation was performed. Since then she has had X-ray treatment for nearly two years supplemented by excisions and plastic operations. At present the line of nodules which has recurred along the edge of plastic graft has been treated with the dental burr-dipped in carbolic acid and tri-weekly sances of radiotherapy with a soft tube for ten minutes at a time at a distance of 15 centimeters. Under this treatment all the tubercles disappeared for a time, but a few have recurred.

A Case of Mycosis Fungoides. Presented by Dr. Fox.

The patient is a young woman, aged thirty years, who was admitted to the Skin and Cancer Hospital, October 18th, 1904.

Five months before admission to hospital her illness began with loss of hair followed soon after by chills and fever which lasted two days. Erythematous and scaly patches began to appear on the body varying in size from one-fourth to one-half inch in diameter, and gradually increasing in size and coalescing. The skin became thickened and reddened with a tense feel. The patient complained of considerable itching and burning. Upon admission there were present a number of large, indurated eczematous patches scattered over the body. These patches were sharply circumscribed and covered in places with thick crusts. There were no scratch marks visible. The hair of the eyebrows, lids and axillæ soon fell out. The nails were rough and brittle and showed signs of onychia and paronychia. The principal subjective symptoms are chilly and burning sensations.

Dermatitis Exfoliativa. Presented by Dr. FORDYCE.

The patient was a man, sixty years old. When seen three months before he was shown to the Society he presented a typical dermatitis exfoliativa.

The entire cutaneous surface was involved. He was confined to bed and was shedding enormous quantities of thin, flaky epidermic scales.

He then stated that his trouble had existed about three months and had begun on the scalp without any antecedent skin trouble.

His skin affection had now materially improved as shown by very slight exfoliation and by the appearance of small patches of normal skin.

He presented some atypical scaling spots which suggested a psoriasis.

Dermatitis Papillaris Capillitii. Presented by Dr. FORDYCE.

Man, aged thirty-four, well nourished, with no family history of tuberculosis.

When eleven years old he developed a hip tuberculosis which healed with little deformity.

Fourteen years ago a small lesion appeared on the back of his neck which in seven years attained the size of the end of the thumb. In the last three or four years it had grown rapidly and now involved an area four inches long by two inches wide.

It was elevated above the skin surface about three-quarters of an inch.

The entire lesion was keloidal with the exception of a narrow band at the periphery which was made up of brownish-red papulo-pustular lesions evidently originating in and about the hair follicles.

A. D. MEWBORN, *Secretary.*

NEW YORK DERMATOLOGICAL SOCIETY

333d Regular Meeting, April 25th, 1905.

DR. GEORGE H. FOX, President.

A Case of Pigmentation of the Face. Presented by Dr. FORDYCE.

The patient is a young man, a barkeeper by occupation, who has a very diffuse light brownish pigmentation of the face which came on about three months ago without any known cause. The pigmentation, which resembles somewhat the pigmentation caused by the prolonged exposure to X-rays, is at present much lighter than it was when first seen.

Dr. ALLEN pronounced the case one of chloasma.

Dr. FOX said that aside from the rarity of chloasma in the male, the case presented failed to show the distinct outlines in the patches as found in chloasma. That in chloasma it was unusual to find the marked presence of freckles or *nævus spilus*.

Dr. FORDYCE added that the freckles were present before the pigmentation. That there was no redness or other inflammatory signs preceding; that there had been no medication and that the pigmentation had been so pronounced and diffuse as to resemble a mulatto.

Dr. FOX recalled the case of a man who worked in a rubber factory whose face was of a bluish-black color, the pigmentation being in fine black dots. It was found, on investigation, that the man was accustomed to work at hammering and polishing rubber which must have thrown off very fine particles. No other men working in the same factory were affected, however.

Dr. FORDYCE, in closing, said, that he had thought of the arc-light as a possible source of the trouble, but this was denied by the patient.

A Case of Lichen Planus Atrophicus. Presented by Dr. ALLEN.

The patient was a middle-aged woman who suffered for seven months from an unusually distributed atrophic condition of the skin forming a V-shaped area on the back, somewhat resembling the shape of a pair of suspenders, thickly dotted with small and large white atrophic spots; a few extended in a more or less linear fashion over the shoulders and down the chest. Upon the upper arms were plaques made up of closely aggregated subcutaneous lesions of polygonal and irregular outline. There were said to have been no lesions below the hips. At times the pruritus has been extreme. Here and there over the upper back were lentil size scleroderma-like lesions having a faint seam of pink about the margin simulating a surrounding vessel. Some sclerotic appearing spots appeared to thicken on rubbing with the finger. No absolutely typical lichen planus lesions.

Dr. WHITEHOUSE failed to see any lesions of lichen planus in the case. These lesions were primarily hypertrophic, later becoming atrophic. There was not

present the characteristic color or shape of lichen planus lesions; some typical papules of which would surely be manifest were it that disease. In his opinion the lesions resembled much more closely a localized scleroderma or morphœa in small spots.

Dr. DADE was not familiar with the term lichen planus atrophicus.

Dr. PIFFARD said the parallel atrophic lesions, as found in this case, was a clinical picture with which he was entirely unfamiliar.

Dr. FORDYCE thought the case presented an atrophy of the skin of a peculiar type. He recalled a similar case presented by him at the December, 1903, meeting. That case was a woman who had pea-sized lesions on the buttocks and under the breasts. In that case there was a hyperæmia preceding the atrophy, but no infiltration or lichen planus lesions.

Dr. JACKSON believed that it was an atrophy of the skin. He could see no evidence of lichen planus.

Dr. BRONSON considered many of the lesions (at least such as showed thickening) as keloidal in character, and believed they were secondary to little traumata. The fact that itching had been such a prominent feature of the disease would imply that primarily the disease was a pruritus, the scratching caused the traumatism; thence ensued the keloidal condition, and in places was followed by atrophy. He saw no evidence of lichen planus.

Dr. BULKLEY did not regard the case as lichen planus. The distribution on the back and upper arms was quite the rule in these atrophic conditions.

Dr. KLOTZ could not see how the diagnosis of lichen planus could be sustained in the absence of even a single characteristic lesion or symptom except the itching. The condition present in these lesions was apparently an atrophy restricted to the deeper strata of the epidermis.

Dr. ROBINSON said it was easy enough to call it an atrophy, but what was the underlying cause. He thought it was due to the nervous system. One might call it a "*neurodermite*," and that the keloidal and scar-like changes were secondary to the traumatism caused by the scratching.

Dr. FOX would not call the condition an atrophy as the skin was thickened. He rather favored the diagnosis of morphœa or a localized scleroderma. He thought it was precisely like the one shown by Hyde and Montgomery at Chicago several years ago. In that case the lesions were on the chest and arms.

Dr. FORDYCE recalled that case and said the patches were larger and were preceded by an infiltration.

Dr. FOX maintained that in the case under discussion there was present a fine arborization or halo around the spots. That there was a tendency for the spots to coalesce and form large patches.

Dr. ALLEN, in closing said, that he believed this to be a case of lichen planus atrophicus. He saw no objection to using the term atrophicus in connection with lichen planus since it was very generally accepted that there was a bullous form of lichen planus, and if we admit an atypical variety we may another. Some of the new lesions seemed atrophic at the start, but he had found on the back that a distinct hypertrophy had preceded. Some of the lesions even had tenacious adherent scales. It was not like a morphœa, with an irregular surface, but in this case the lesions were decidedly polygonal in outline, slightly raised, and extremely itchy. If the color usually seen in lichen planus lesions were present, he thought there would have been no hesitation in the diagnosis. All subjective symptoms had disappeared under an internal treatment of arsenic and the high frequency current locally. Almost no change had taken place in the atrophic lesions, but the patient considered herself practically well, all itching having disappeared since two months, after a course of treatment usually beneficial in lichen.

A Case of Destructive Folliculitis (Folliculite épilante). Presented by

Dr. A. R. ROBINSON for Dr. DAISY M. ORLEMAN ROBINSON.

The patient, a native of Austria, aged thirty-nine years, gives a family history free from tuberculosis or cutaneous diseases. Apart from this skin disease, his general health seems to be good. When about six or eight years of age, he had an eczema of the entire body, including the scalp, attended with itching and sometimes a moist condition; at other times a dry condition. There was no falling out of the hair in connection with this eruption at this time. He received treatment in Vienna consisting of baths and ointments. At the age of twelve, when he was under the care of Hebra, he was given sulphur baths, tar ointment and strong washes for the head; cod-liver oil both internally and externally. From the age of sixteen to twenty-three, he was under the care of Kaposi and Neumann in Vienna, and Schwimmer in Budapest, from whom he received some benefit. At the age of twenty-two the hair first began to fall out. He came to the United States ten years ago. At present it will be observed that the hairs have entirely disappeared from the face, except some fine lanugo hairs on the upper lip and on the chin; a few hairs still remain on the inner part of both eyebrows. The eyelashes are scantier than normal. There is scar tissue on both cheeks, between the malar bone and the ear, occupying approximately a more or less circular area of about two inches in diameter. The nasal orifices are almost entirely devoid of hair. On the scalp the hair has fallen out in a most peculiar manner. The denudation commenced at the margin throughout the entire extent and gradually progressed toward the crown of the head so that at present there is an area of from one to three inches around the entire scalp completely devoid of hair, leaving an area that might just be covered by a skull cap. This bald area shows no sign whatever of cicatricial tissue. At the hairy margin inflammatory symptoms are quite marked, consisting in places of isolated lesions corresponding to a hair follicle area. The lesions are reddish in color, even or slightly elevated above the surface and appear as if formed by a serous exudation. There are no signs of a suppurative inflammatory process judging from the color. Some of these isolated lesions become covered with thin brownish crusts, which latter being removed, it is easy to pass a small curette into the follicle orifice. The hairs do not fall out at an early stage of the lesion formation. In some other places, at this spreading margin, the interfollicular tissue is likewise inflamed giving the character of a more general inflammation of the corium. At present there are no lesions at the margins of both sides of the scalp. The margin in the occipital region shows a number of isolated lesions. About a dozen lesions are scattered over the top of the scalp. The patient states that the character of the lesions was at all times similar to those now to be seen in an active

stage. The case is shown on account of the peculiar manner in which the disease has appeared and spread and the unusual non-suppurative character of the lesions, and the slight cicatricial formation accompanying the destructive processes. I hope to make a complete study of the case anatomically and bacteriologically.

Dr. BULKLEY classified the case as one of folliculitis decalvans, in which the progress of the disease was very symmetrical. Thinks it most likely to be due to some microörganism.

Dr. WHITEHOUSE thought the case would rather come under the class of diseases called by Taenzer and Unna ulerythema sycosiforme, which spreads in a serpiginous manner, leaving atrophy without suppuration, as in a folliculitis.

Dr. FORDYCE agreed with the diagnosis as presented.

Dr. ALLEN agreed with Dr. Whitehouse.

Dr. JACKSON referred to Brocq's recent grouping of many of the unusual depilating processes together under the name of pseudo-pelade. He would agree in the diagnosis of folliculitis decalvans.

Dr. BRONSON referred to a very interesting presentation of this subject of folliculitis decalvans in a paper by Brocq, Lenglet and Ayrignac, in the last three issues of the *Annales de Derm. et Syph.* Dr. Bronson was not willing to classify the case under discussion as ulerythema sycosiformis. That disease he considered a much deeper seated affection. If the Society would bear with him he would like to refer to three cases of peculiar alopecia which had come under his observation:

The first case was a young married woman, whose hair over the top of the head had begun to fall many years before (during her girlhood). The process had apparently been arrested when the patient was seen, but a large irregular area corresponding to the calvarium had been completely denuded of hair. The appearance suggested somewhat the alopecia left from favus, but there was no history of this disease; the scalp, though somewhat thin, had nothing of the atrophic and hidebound appearance following favus, nor were there any of the tufts of coarse hairs often observed after favus.

The second case also concerned a young married woman, and affected more particularly the sides of the scalp—one side much more than the other. Large areas were completely bald, the alopecia was irregular in form in view of the fact that the husband undoubtedly had syphilis and notwithstanding the wife did not present any signs of the disease (unless the alopecia were such a sign), nor give any history of previous symptoms, the patient was treated anti-syphilitically for some months but without the least effect on the alopecia. It has remained unchanged for over a year.

The third case was that of a married lady whose general health had been good, who had healthy adult children, and whose hair, except in the affected parts, was uncommonly luxuriant and beautiful. The parts affected were on the top of the head, a short distance back of the frontal border, and mostly on the left side. These were generally irregular in shape, mostly ovoid bald patches. The largest was about three inches long by an inch wide at the middle portion and extended from before backward. There were several small patches—three or four in all. They were not of any definite shape and seemed to reach out into the surrounding healthy scalp somewhat like the prolongations of a keloid. Some of the denuded spots showed some thickening, and upon the more recent ones there was evident some active inflammatory disease of the follicles,—slight redness and scaling about the peripheral hairs or those still remaining within the area of the alopecia. There were no subjective symptoms. Apparently some improvement had been

effected in this case by rather free use of disinfectant applications—principally sublamine of Schering and Glatz.

Dr. MORROW had seen many such cases. One case the entire body had been denuded of hair. Some hair had returned on the vertex and occiput. Dr. Morrow inquired if the loss of hair on the face and eyebrows were preceded by the same lesions as were at present active.

Dr. ROBINSON replied, that according to the patient's statement, the loss of hair on the face had been preceded by the same lesions as those present on the scalp.

Dr. FOX said that he thought the band-like limitation around the margin of the scalp was rather unusual. In all the cases of folliculitis decalvans which he recalled seeing the disease was more irregularly distributed. In the affected patches the hair could be pulled out in bunches with adherent sheaths.

Dr. MEWBORN said that in the case under discussion the disease affected the pubic and axillary hair, which recalled a case in an Italian which he had shown at the September meeting. In his case the disease affected the beard, eyebrows, and eyelashes. The pubic and axillary regions were entirely denuded. In his case, while the inflammation was confined to the follicle, the hair could be epilated with slight force and came out without the root sheath.

Dr. ROBINSON said, in closing, that he had carefully described these hair affections of folliculitis decalvans in the chapters which he had written for Morrow's System, but that this case did not correspond to any of the cases which he had previously seen. He had made a careful histological study of lupoid sycosis about thirty years ago. In that disease there was a decided general infiltration into the skin with well marked suppuration in the follicle. In this case he had carefully searched for a follicular suppuration and had been unable to find a single one. There was present in this case a perifollicular infiltration with a decided serous transudation into the follicle area. The follicle was slightly raised, and the crust at the orifice was apparently composed of dried serum. The epilated hair also showed no sign of pus or a suppurative sheath. This was, therefore, a serous process and not a suppurative one. In Quinquand's disease suppurative lesions were described. He objected to the way in which many of these depilating folliculitis cases were classified as alopecia. He had seen a seborrhoic eczema cause a loss of hair.

Dr. MEWBORN had also seen eczema seborrhoicum produce an alopecia. A case which he recalled having seen under the service of Dr. Morrow at the New York Hospital Dispensary was a young boy with patches of eczema on the scalp, genital and axillary regions. The patches in the scalp extended and became confluent, causing the hair to fall out and leaving shiny red, bare areas. A careful search for ringworm fungi was unsuccessful. Under treatment and a sojourn in the country all the hair returned.

Dr. ALLEN also had seen a seborrhoic eczema cause an alopecia at the back of the head.

A Case of *Xanthoma Tuberculatum Multiplex Juvenilis*. Presented by

DAISY M. ORLEMAN ROBINSON, M. D.

S. M., aged two years and a half. Three months after birth small red blotches appeared on the face, which within three days spread over the body. New ones continued to appear until six months ago and to such an extent that the eruption was extensively distributed over the entire body. The lesions were markedly red at first, pinpoint to pinhead in size,

afterwards increasing, so that various grades could be observed even to split-pea size while a few were even larger—the size of a finger nail. The case came under my observation eight months ago. The lesions over the greater part of the face were irregularly distributed, also varying in size from a pinhead to a split-pea. On the left side eight small lesions were situated between the eyebrow and the eyelid. On the right side in the same location were eight similar lesions. One small lesion was situated at the outer canthus of the left eye. There were several lesions on each side of the nose and one at the end of it. About seventy-five or more lesions were located on the forehead all of which were sharply limited, elevated, brownish and red in color (in this respect resembling closely some of the syphilides). On both ears and the back of the neck were quite a number of lesions. No lesions were present on the mucous membrane of the mouth. The lesions on the cheeks were very red in color, the smaller ones showing a yellowish tinge upon pressure and the larger ones having a marked yellow center. On the left arm were half a dozen lesions on the flexor surface and a considerable number on the extensor surface with a tendency to grouping. These lesions were variously sized, very red in color without any yellow color in any part. There were several lesions on the back of the hand. The condition of the right arm was similar to that of the left arm, except that there were no lesions beyond the wrist. Upon the upper part of the posterior surface of the thorax there were but two lesions present, while on the lower part were a great number, the larger lesions being oval shaped, very slightly elevated, if at all, and brownish in color. These lesions were said to have existed since the commencement of the disease. Over the gluteal region were many variously sized lesions; one lesion was so large that the term tubercle could be aptly applied to it. On the front part of the thorax were a few small lesions and a considerable number of pigmented spots. Over the abdomen above the umbilicus there were from forty to fifty similar pigmented areas and an absence of active lesions. On the lower part of the abdomen there were a number of lesions and pigmented areas. The pigmented areas, of which there are several hundreds on the body, correspond to the seat of previous xanthoma lesions. Since the patient has been under observation a large number of lesions have disappeared while some have increased in size. The flexors of the legs were free from lesions and pigmented spots. On the calf of the right leg was one large lesion about one inch in diameter, sharply limited, tubercular in form, yellowish in color. There were a number of small lesions on the extensor surface of the legs with a decided tendency to grouping. The feet were free from lesions.

There was no history of the presence of jaundice at any time. The child has always been healthy. Examination of the urine showed an absence of sugar. Examination of the blood showed a slight secondary

anæmia. There is no history of diabetes in the family, the parents and other children being healthy.

Dr. MORROW said that in the grouping and the pigmentation left by the lesions, the case resembled slightly urticaria pigmentosa, especially the chamois-skin like elevations. Of course there was no question about the diagnosis.

Dr. JACKSON recalled a similar case of his in a boy five years old in which the lesions were thousands instead of hundreds. This began when he was three months old without jaundice or glycosuria.

Dr. ROBINSON said that the case at present gave no idea of the extent of the eruption that has existed, as hundreds of lesions have disappeared.

Dr. MORROW said in regard to the disappearance of lesions he had reported a case years ago in which the palms, wrists and upper part of the body were affected, as well as the knees. Lesions on the upper part of the body would disappear, while those on the lower would grow larger.

Dr. ROBINSON added that, while in adults it was almost the rule for jaundice to occur in the multiplex form, in this case, as in multiplex cases in children, there had been no jaundice at any time. In this case, also, no sugar had been found in four careful examinations of the urine. Dieting in the diabetic forms usually produced some amelioration.

Dr. MORROW thought that a glycosuria was at times very transient and might be overlooked.

Dr. ORLEMAN ROBINSON stated in reply to the last speaker, that while spontaneous disappearance of lesions has been observed in cases of multiple xanthoma of adults, she was not aware that this occurred, or has been reported as occurring, in cases of children, and it is a question if the two diseases have a similar etiology.

A Case for Diagnosis. Presented by Dr. Fox.

The patient is a coachman, æt, thirty-five, whose face is covered with red suppurating nodules and dermic abscesses. While it presents the appeared a universal eruption of minute, fine, discrete, pin point, acumin in middle life, the grouping of a few firm nodules and the marked tendency to free hæmorrhage when the lesions were curetted, had led him to believe (without a microscopic examination) that it might be the result of a disseminated tuberculosis.

Dr. WHITEHOUSE could not agree with the diagnosis of disseminated lupus, as in his mind there was distinct evidence of comedones, pustulation and abscess formation simulating in places a parasitic sycosis. He would pronounce the case an aggravated acne induratum.

Dr. DADE made the diagnosis acne induratum.

Dr. FORDYCE considered it very unusual for an acne to appear at the age of thirty-five without having previously shown signs of the disease. It was a case of suppurative folliculitis, and it might be well to search for the demodex. The demodex was known to cause a suppurative inflammation in the dog and pig, and under favorable conditions might be pathogenic in man.

Dr. ALLEN thought it was a case of acne of a peculiar type. He had maintained for many years that the demodex might, at times, be pathogenic. In an eruption resembling molluscum contagiosum once presented before the society he had found the demodex unusually abundant and active.

Dr. BRONSON was not inclined to believe the case had anything to do with

lupus nor would he regard it as an *acne vulgaris*. He was able to find few evidences of comedones. It seemed to him rather related to the *rosacea* group, of the pustular type.

Dr. BULKLEY regarded the case as an *acne induratum* in a beer and alcohol drinker.

Dr. KLOTZ said that particularly in consideration of the rapid and extensive development of the lesions, he could not accept the diagnosis of *lupus follicularis disseminatus*. The conditions about the neck and the bearded part of the face suggested rather *sycosis parasitaria*. He did not consider the absence of comedones as of great importance, in cases of deep seated acne they would not regularly be found in large numbers. Here the deep seated pus foci often developed beneath a perfectly smooth epidermis with no signs of a comedo. He regarded the case as an acne with a tendency to *rosacea*.

Dr. FOX, in closing, said that *lupus disseminatus* was likely to appear at the age of thirty. That the rapid development and evolution of the disease and the subcutaneous abscesses were different from an *acne induratum* or a *rosacea*.

A. D. MEWBORN, *Secretary*.

BOSTON DERMATOLOGICAL SOCIETY.

March Meeting.

DR. J. H. MCCOLLOM in the Chair.

A Case of Iodism (?) in a Baby. Presented by Dr. J. S. HOWE.

The child was six months old and had been given "White pine compound and tar" on account of a slight bronchitis. On presentation there appeared a universal eruption of minute, fine, discrete, pinpoint, acuminate papules, while on the cheeks there were numerous flat-topped, dull red, not easily compressible, hæmorrhagic papules. On the forehead the child seemed inclined to scratch but elsewhere pruritus was practically absent.

The members present agreed that the hæmorrhagic character of the lesions on the face of the baby would seem to indicate that the child had taken iodide of potash, although the medicine prescribed was not supposed to contain that drug.

Dr. MCCOLLOM said that he constantly saw such hæmorrhagic papules following the injection of diphtheria antitoxin, and in such cases the lesions would often appear over the whole body, accompanied by considerable itching.

A Case for Diagnosis. Presented by Dr. C. J. WHITE.

The patient was a Portuguese in the skin ward of the Massachusetts General Hospital. He was about fifty years of age and apparently had always enjoyed good health. Four weeks previously a "sore" developed on the left cheek. This itched a great deal and the patient broke the skin in scratching, but no pus had ever been seen. At the end of a week the whole left cheek was swollen and red. Seven days later the right cheek was similarly involved in the process and three weeks from the

first appearance of the pea-sized "sore," both cheeks and the neck were affected.

When first seen the whole face and neck were œdematous, very red and oozing everywhere. The diagnosis of dermatitis venenata was made on account of the general appearance and because at that time no history could be obtained from the patient who speaks but little English.

The patient has been under observation now for about ten days and, despite the use of many and various forms of treatment, the condition is growing decidedly worse. The original pea-sized nodule in front of the left ear is now a half-dollar-sized mass, considerably raised above the surrounding surface, flat on top and very soft, but apparently containing no pus. Over the rest of the diseased area have developed gradually, despite treatment, many other smaller nodules which appear red, swollen and highly inflamed, giving the whole a decidedly lumpy appearance. Isolated or aggregated follicular pustules are quite lacking—in fact, pus is conspicuous everywhere by its absence.

Careful microscopical examinations for signs of ringworm have been made by Dr. F. S. Burns, always with negative results.

Dr. HOWE thought that the clinical appearances strongly suggested ringworm.

Dr. POST mentioned the possibility of actinomycosis, but thought that the rapid spread of the disease and the great number of the nodules would preclude such a diagnosis.

Dr. HARDING inquired as to the possible ingestion of drugs. If such a factor could be positively eliminated he favored the diagnosis of tinea trichophytina.

Dr. TOWLE suggested an ordinary pyogenic infection.

Dr. JAMES C. WHITE said that the appearances of the disease would make one think of a possible drug eruption. He considered the area uniformly affected was far more extensive than one usually observed in ringworm.

Dr. MCCOLLOM was inclined toward the idea of ringworm.

Dr. C. J. WHITE believed that it was difficult to overlook the microscopical presence of ringworm in such a case, and thought that the absence of pus and the tenacity of the hairs, noted by Dr. Burns in his examination of the case, should force one to abandon the view that the man had an ectothrix infection of the bearded face, for, after all, such clinical appearances could be produced only by an animal variety of the ringworm plant. Dr. White, therefore, felt reasonably sure that the disease was not ringworm.

A Case of Dermatitis Medicamentosa. Presented by Dr. Post.

The patient was a young man who had had gonorrhœa for eight weeks. During the last eight days he had taken capsules. Three days after the ingestion of the first capsules the present eruption appeared and when shown to the Society, consisted of many large (one-half inch in long diameter), oval, dull red, wheel-like lesions distributed over the trunk and extremities, but especially abundant and closely packed on the thighs and over the sides and back of the chest, where they tended to follow the lines of cleavage of the skin.

On the back of the pharynx, behind the left tonsil, there was an irregular, rather foul ulcer, while the soft palate and the arch of the fauces were uniformly and deeply injected. There was a marked cervical adenopathy.

Dr. BOWEN thought that the eruption suggested a copaibal intoxication rather than a sandal oil eruption, as hinted at by Dr. Post. He would certainly not eliminate syphilis unless he could examine the patient by daylight, for he held the ulcer in the mouth and the history of sore throat nine weeks ago as strongly suggestive of syphilis.

Dr. BURNS and Dr. C. J. WHITE agreed with the last speaker and felt that a stronger light might reveal the presence of an underlying syphilitic roseola.

Dr. JAMES C. WHITE thought the case resembled a copaiba rash, and could see no evidence of any other dermatosis.

Dr. MCCOLLOM made the diagnosis of copaiba dermatitis and said that this drug was often put into sandal wood oil capsules to lessen the cost of manufacture.

Dr. HOWE agreed with the preceding speaker, but also felt that the whole eruption could be one of syphilis, as he had seen exactly similar appearances in this disease.

Dr. POST spoke of the striking arrangement of the lesions of the sides and back, and said he had often found such configurations in syphilis. He also noted the absence of coalescence of lesions in the bend of the knees, so often seen in anti-blennorrhagic rashes, especially those produced by copaiba. Furthermore, he considered the diagnosis complicated by the oral lesions and the indurated cervical glands, but he had not been able to detect any syphilitic roseola by daylight, and he had not found adenitis elsewhere than about the neck. He would, therefore, call the eruption one produced by sandal wood oil.

A Case of Ringworm, Ectothrix Variety. Presented by Dr. C. J. WHITE.

The patient, a man aged thirty-eight, lived upon a farm and spent most of his time with horses, but denied that any of them had any disorders of the skin. On January 1st, a small pustule (?) appeared in the median line of the neck in front, due to the irritation of a collar button. From then on other foci of infection appeared throughout the beard below the jaw until the whole width of the neck was involved. No treatment was sought until February 27th, when a doctor prescribed a wash and ointment, which seemed to cause a more intense degree of inflammation and induced the patient to enter the skin ward of the Massachusetts General Hospital.

At the time of entrance the whole bearded neck from ear to ear was a lobulated mass of pustules and general superficial oozing dermatitis and the man was somewhat cyanotic and complained of difficulty of breathing. Higher up above the ramus of the jaw there were a few foci of conglomerate follicular pustules and on the back of the neck were found one or two more superficial pustules. Over the first metacarpal of the right hand there was a plaque the size of a silver quarter-dollar, circumscribed, dark red, composed of an aggregation of follicular pustules. (Fig. 1.)

The man was given hot fomentations of water for fifteen minutes night and morning, followed by applications of black wash for a similar period of time and finally a continuous dressing of naphthol 2, carbolic acid 4, flowers of sulphur 4 and lard 30. The man was asked to remove all hair which came away easily and proved very adept at epilation. Improvement was rapid and when shown to the Society seventeen days after entrance to the hospital presented a flattened, uniformly but slightly infiltrated, pink condition of the neck apparently free from deep or superficial pus.

Microscopical examination showed the typical picture of the megasporon ectothrix.

The members present agreed with the diagnosis of ringworm and commented on the rapid improvement shown by the patient. Dr. C. J. White said that he always expected such results when the ectothrix fungus was present on account of the ease with which one could rid oneself of the invaded hairs, the removal of which took away the necessary food of the plant.

A Case of Impetigo Bockhart. Presented by Dr. C. J. WHITE.

The man, now aged sixty-eight, was first treated at the Massachusetts General Hospital in February, 1903. At that time he had an infiltrated, oozing eczema of the hands and legs which began as a "pimple" on the left ankle, gradually extended up the leg and at the end of a year appeared on the other leg. All through this period of treatment and persistent extension of the process, itching was a dominant characteristic. In March, 1904, the disease became noticeably follicular but pus played no rôle at that time. The patient, who had spent thirty-five years of his life at sea, had now become a laborer and attributed the new follicular appearances to the fact that he had been wearing rubber boots constantly. In April, 1904, an aqueous solution of eosin 1-250 was continuously applied and marked improvement resulted, so that the disease was limited to a few disseminated plaques. Other forms of treatment were instituted later and on July 15th, 1904, the disease entered a new phase and appeared as bright red, follicular pustules crusting and excoriated over both legs and thighs. Despite faithful treatment on his part, the disease remained apparently unaffected by the various means recommended by the attending physicians of the clinic.

On January 18th, 1905, the man was admitted to the skin ward. At that time both legs and thighs, especially the outer aspects of the thighs and the inner parts of the legs were dark red, deeply infiltrated and much thickened, while on the surface appeared very numerous, discrete, hard papulo-pustules, each pierced by a hair. Intense pruritus was present but the man refrained as much as possible from scratching. For ten weeks the man remained in the hospital. During this interval he was given ointments and washes and powders and plasters and jellies and soaps containing a host of drugs and in addition a thorough course

of X-ray treatment. As a result the deep infiltrations had disappeared but the discrete, follicular papulo-pustules were still developing without cessation, but the individual remained entirely unaffected by this long-continued, ceaseless, purulent process. Fever was at no time present and all organs were sound and healthy.

Careful cultures were made by Dr. Burns after long-continued superficial sterilization of the thigh. As a result the *streptococcus* was isolated each time, the ordinary staphylococcus epidermidis albus being present in normal quantities.

An incipient papulo-pustule was excised after cocaine anæsthesia, hardened in alcohol, imbedded in paraffin and stained in the customary ways.

The pustule consists of a broad, flat, cup-shaped space with central opening. The lesion lies wholly within the rete and the roof is formed by the granular layer and the sides and floor by the rete.

Studied with the high power the subjacent cells are seen to be round and highly œdematous and each element stands out distinctly from its neighbor with its surrounding spines clearly accentuated, as so often happens at this stage of serous exudation. The protoplasm of many of the cells is practically dissolved leaving the cell boundaries and nuclei sharply defined.

The same cell characteristics are visible on the sides of the pustule and extend laterally in slowing disappearing quantities a long distance in both directions. It is interesting to note the unusual size of the individual cells and their markedly spherical shape—both features more pronounced here than in the rete which forms the floor of the lesion and this points, I think, all the more to the very superficial tendency of the process.

Immediately surrounding the lesion, both laterally and below, colliquation has advanced still further and we see delicate cell trabeculæ more or less free from nuclei. Invading leucocytes are wholly wanting.

The roof of the pustule, as has been stated above, consists of tightly packed granular cells, but the granules are no longer visible and near the superficial opening shreds of rete tissue enclosing a few nuclei hang down into the pustule. Above the granular roof are a few layers of densely packed horny cells. (Fig 2.)

The chamber of the pustule is strangely free from pustular elements and contains a delicate network of coagulated fibrin, many œdematous rete nuclei and some shreds of rete cytoplasm. Extraneously these elements are in much greater abundance and density but here again suggestions of leucocytes, not to mention polynuclear elements, are absolutely non-existent. And yet clinically it was a well-defined, minute papulo-pustule which was excised and a near neighbor, quite similar to the eye, gave growths of streptococci. Dilation of vessels, great œdema and lymphocytic invasion are the striking features of the corium.

Dr. JAMES C. WHITE said that he had seen several instances of follicular impetiginous condition of the lower extremities. They sometimes followed an eczema of the genital region and often presented follicular hyperæmia and were always extremely stubborn. Dr. White had found a wash of bichloride of mercury as successful as anything in the treatment of these cases.

Dr. HARDING had seen such cases in men who worked in sewers. He had obtained the best therapeutic results from ichthyol solutions, varying in strength from 10 per cent. up to full solution.

Dr. BOWEN alluded to the almost constant association of eczema with these chronic, recalcitrant cases of folliculitis of the legs.

**Epithelioma of the Lip of Five Weeks' Duration, A Case of. Presented by
Dr. C. J. WHITE.**

[As the patient had been transferred to the surgeons for operation his photograph with his history and microscopical sections were reported to the Society.]

The man, aged thirty-eight, was sent by Dr. Sheehan, of Stoneham, to the skin department of the Massachusetts General Hospital for treatment. Last July the patient appeared before Dr. Sheehan with a sore on his penis and stated that he had had connection with a woman two to three weeks previously and also six weeks before that. The first lesions consisted of a shallow ulcer and several macules on the glans penis. About three weeks later a generalized papular eruption appeared on the body, and some of the lesions were still visible along the ulnar border of the arms and on the buttocks as atrophic, dark red maculo-papules. No other early symptoms were present except a submaxillary gland on the right side. Dr. Sheehan had been treating the man with mercury and iodide of potash.

Five weeks before his first appearance at the hospital a small crack developed on the median line of the lower lip, which grew into a nodule and which continued to increase in size until at present there exists a large tumor extending entirely across the lip, as seen in the accompanying photograph. This mass is very hard, elastic and covered with a dry, closely adherent, atrophic-looking skin. Along the mucous border there is a superficial, slightly moist ulcer. The broken surface seen in the photograph (Fig. 3) is the result of a biopsy. Under the right ramus of the jaw can be detected a button-shaped gland which is hard, elastic and freely movable. Smaller glands can be felt elsewhere about the anterior neck.

Under the microscope the following features were noted:—

Large lobules growing down directly from the rete with restraining and limiting cells within which were elongated cells and nuclei and many eosin-staining granules.

Great numbers of small, irregularly shaped lobules without any restraining cell layers.

Epithelial pearls in abundance, often enclosed in hyaline-staining areas with associated hypertrophied and much distorted epithelial cells.

Numerous, widely dilated blood vessels accompanied by considerable areas of hæmorrhage.

A few hair follicles and sebaceous glands appearing at the edge of the sections. These were apparently quite normal and took no part in the highly proliferative process. (Fig. 4.)

The members present were struck by the comparative youth of the patient, by the extraordinary rapidity of growth of the cancer, and by the early involvement of the glands. Dr. C. J. White wondered whether the concomitance of the syphilis could explain the unusual malignancy of the cancer.

An Unusual Case of Lupus Erythematosus (?) Presented by Dr. H. P. TOWLE.

The patient was a woman fifty years of age. Four years ago the disease began in the form of very small, dry patches situated over both eyebrows, on each side of the bridge of the nose and on the occiput. These patches grew slowly and new ones appeared here and there over the face, until finally the forehead, cheeks, nose, chin, ears, upper part of the neck and the entire occipital region became involved. Over the parotid region on both sides some of the lesions faded, leaving in their wake a smooth, dead-white skin. No subjective symptoms accompanied these striking cutaneous changes and the general health remained good throughout the entire period.

To-day the eruption occupies the area bounded by a line drawn across the forehead about one inch above the eyebrows, extending outward just above the ears, thence downward across the occiput about three inches above the nape of the neck and forward across the sides and front of the neck about one inch below the jaw. This area is marked out in an irregular, serpiginous manner by closely aggregated, soft, reddish papules, elevated one-eighth of an inch above the surface with small grayish white, moderately adherent scales. The included area is the seat of a brownish red eruption which is so abundant over the middle two-thirds of the face as to be almost continuous but showing here and there small irregular areas of atrophic skin. On closer examination it is seen that the eruption over this part shows a tendency toward arrangement in circles, indicated by a border of deeper color than the center. The color disappears on pressure, leaving a yellowish stain and revealing very numerous capillaries. There is everywhere a moderate amount of fine scaling. Over the outer third of the face and on the neck, instead of a generally reddish brown area interspersed with small white spaces, the general color is a dead white interspersed with brownish spots. These spots are roundish and vary in size from a pinpoint to a large pea. They are of a reddish brown color which largely disappears on pressure, leaving a yellowish stain through which course dilated capillaries. The

skin of the white areas is slightly atrophic but smooth, pliable and not depressed below the surface. The band over the occiput is largely composed of atrophied skin which is tightly adherent to the bone beneath and is entirely bare of hair. Scattered over it are small brownish areas similar to those on the outer thirds of the face.

The eyebrows have nearly disappeared, only a few scattered hairs remaining. Here and there over the affected area are small, brownish nodules which suggest nodules of lupus vulgaris. Nowhere is there induration; on the contrary, the whole process is quite superficial.

Before the red lesions appeared on the face the patient received nine exposures to the X-rays and was given a strong ointment to use externally, but as both of these factors were absent in the history of the occipital lesions, which to-day are quite similar to the facial changes, it seems unnecessary to attribute any positive etiological importance to these facts.

A piece was excised from the elevated border on the neck for microscopical examination.

The epidermis is everywhere thinned and œdematous. The rete cells are round or cuboidal and have vesicular nuclei. The horny layer is exceedingly thin in all parts except over the vesicles where it is thrown up in a meshwork with widely dilated spaces. These vesicles, some of which are formed about a hair, lie between the rete and the stratum corneum and contain many blood corpuscles.

In the corium two features are most conspicuous, *i. e.*, the cellular infiltration and the œdema. The invading cells consist of lymphocytes and some plasma cells and form distinct foci along the course of the vessels, about the sebaceous glands and along the whole extent of the sweat ducts. Throughout the corium the vessels are widely dilated and are apparently increased in number.

The œdema is very marked and involves the upper layers of the corium chiefly. Here and there the fluid is so abundant that the collagenous bundles are widely distended and the epidermal strata have been compressed and thinned and pushed upward. Here again minute vesicles are present and lie between the rete and epidermis.

Dr. HOWE said that the history, the loss of hair, and the general appearances indicated a widespread, diffused lupus erythematosus.

Dr. BOWEN felt that he had seen many anomalous cases of lupus erythematosus, but he could not reconcile this case even to that obscure category. Dr. James C. Johnston, of New York, had once sent him a case in many ways similar, and in that case a diagnosis of tuberculide was made.

Dr. BURNS believed that the patient had lupus erythematosus.

Dr. C. J. WHITE was inclined to this diagnosis the more he studied the case. He had seen the woman on her first appearance at the Massachusetts General Hospital, and his first impression at that time was that the woman possibly had *angioma serpiginosum*. To be sure, the patient was not a child, although Dr. Crocker had once observed the disease in an adult, and the present condition had

not arisen out of a previously existing *nævus*; but, nevertheless, there were pinpoint vascular areas suggesting the well-known cayenne pepper granules, and in places there was a well-marked angiomatous, serpiginous border.

On examining the slides which Dr. Towle kindly let him study, Dr. White felt obliged to abandon the diagnosis of *angioma serpiginosum*, if we were to accept as pathognomonic the findings of Darier, Councilman and Bowen in Dr. James C. White's case, published some years ago. On the other hand, he felt quite as strongly that from an histological point of view *lupus erythematosus* was equally impossible. Some of Boeck's cases of *lupus erythematosus disseminatus*, with their brownish nodules highly suggestive of *lupus vulgaris*, could perhaps fit this present case as well as anything Dr. White was aware of.

Dr. JAMES C. WHITE said that some portions of the disease resembled *lupus erythematosus* strongly, but the very extensive size of the area uniformly affected was against that diagnosis. The appearances of the bald portions of the scalp were also not entirely characteristic. Dr. White could not regard the case as an example of *angioma serpiginosum*, because the peculiar "satellites" were wholly wanting.

Dr. TOWLE, in closing the discussion, said that the marked scaling condition, which was the first feature in the history of the case, and the present peripheral appearances were highly suggestive of *lupus erythematosus*. On the other hand, the brownish nodular-looking areas seen in diascopy made one think of a possible *lupus vulgaris*.

An Unusual Case. Presented by Dr. JAMES S. HOWE for diagnosis.

The patient was a child of four who had had for the last year or more large pigmented masses appear on the face and body. The swellings would disappear in a short time, leaving the apparently permanent red-brown discolorations seen on presentation. In addition a few comparatively large scars were present on the hands.

As the case is to be thoroughly investigated and presented at a subsequent date further details must be omitted at present.

Dr. BOWEN said that if the patient were an adult he would surely think of the infiltrating stage of *mycosis fungoides*, but he supposed that the child's age must rule out such a diagnosis. The case might be an extraordinary example of *urticaria pigmentosa*, but the lesions were certainly much larger than any which he had ever seen or ever read of. He could not call it a case of *syphilis*.

Dr. C. J. WHITE said that *mycosis fungoides* and *urticaria pigmentosa* were the first ideas to come to his mind also, but he agreed with Dr. Bowen that we must enlarge our conceptions of both diseases in order to include the present case under these headings. Another suggestion was *erythrodermie pityriasique* en plaques disséminées, but, of course, the history of nodose lesions and their later disappearance rendered such a diagnosis impossible.

Dr. HARDING stated that when he saw the case before, the lesions were smaller and at that time he considered *urticaria pigmentosa* a suitable diagnosis.

Dr. JAMES C. WHITE expressed the opinion that the diagnosis formed earlier in the case, *syphilis* and *urticaria pigmentosa*, could be excluded by subsequent history and present aspect. The existence of scar tissue in the affected areas would rule out *erythrodermie pityriasique* also. He would suggest the possibility of its being some undescribed form of *tuberculide*. The mother had *tuberculosis* while carrying the child, and the disease developed soon after birth. Some of the appearances were not unlike mild forms of *erythema induratum*, and we knew that scar tissue was a sequela of some types of *superficial tuberculides*.

Dr. Post said the disease could not be syphilis.

Dr. Howe said that he was at a loss to give a diagnosis. At the time when the facial lesions were so tuberculous and suggestive of leprosy he had asked Dr. Post and Dr. White to examine the case. At that time Dr. Post found nothing in the glands or the mucous membranes to suggest syphilis, while Dr. White made a tentative diagnosis of syphilis because he did not know what else to call it.

CHARLES J. WHITE, *Secretary*.

DESCRIPTION OF PLATES

Fig. 1. To illustrate Dr. C. J. White's case of Ringworm, *Ectothrix* variety.

Fig. 2. To illustrate Dr. C. J. White's case of Impetigo Bockhart (see text).

Fig. 3. To illustrate Dr. C. J. White's case of Epithelioma of the Lip of Five Weeks' Duration.

Fig. 4. To illustrate the pathology of the above case.

REVIEW of DERMATOLOGY AND SYPHILIS

Under the Charge of JOHN T. BOWEN, M.D.

INHERITED SYPHILIS

By J. M. SMITH, M.D., Boston.

Inherited Syphilis and Syphilitic Heredity. GAUCHER. (*La Syphilis*, Vol. 1, p. 57.)

At a faculty clinic Gaucher showed a young woman of twenty-one years with these marks of inherited syphilis—sunken bridge of nose, prominent forehead, striated and poorly developed teeth. Her father died young and her mother had had two miscarriages. This patient, with all these signs of inherited disease, has an acquired syphilis in full activity, showing mucous patches of the vulva, disseminated papular eruption on the body and a pigmentary syphilide on the neck. Her initial lesion appeared four months ago.

According to Gaucher this class of cases is not rare. To illustrate syphilitic heredity:—a man had syphilis twenty-six years ago, was treated, married and was the father of three healthy children. After this long period of quiescence he developed a frontal exostosis which was easily cured by specific treatment.

Two of his children, aged eighteen and twenty years—have contracted syphilis. Here is a syphilitic man who begat healthy children capable of contracting the disease. In other words, the syphilis of this father gave them no immunity.

At a previous clinic Gaucher showed a boy of fifteen years with



FIG 1.

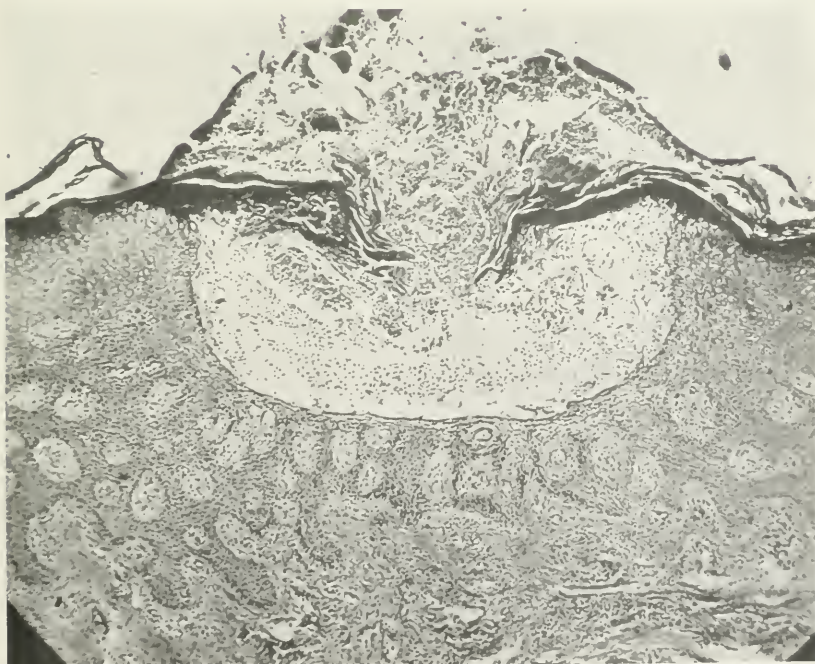


FIG 2.



FIG 3.

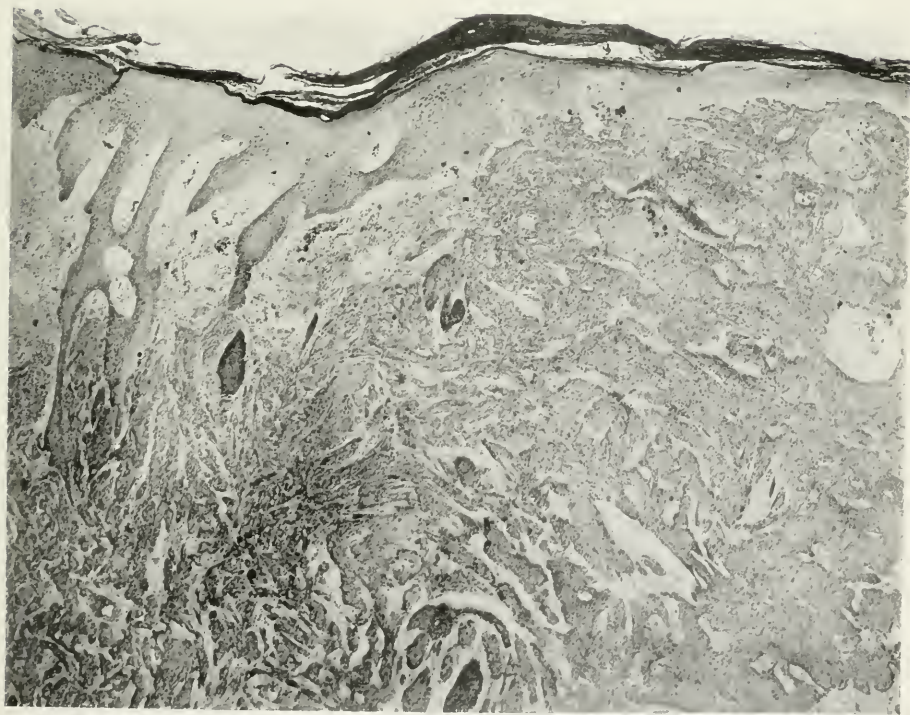


FIG 4.

malformed teeth, infantilism, etc., indicating a condition of *inherited syphilis as well as syphilitic heredity*.

Inquiry into the boy's history confirmed the diagnosis and now he has an acquired syphilis; the initial lesion appeared three months ago. "Congenitally syphilitic by a paternal syphilis severe enough to produce numerous dystrophic manifestations, did not, however, prevent such an offspring from acquiring the disease."

GAUCHER says one ought not to forget that children born of syphilitic parents should they be *healthy* or *tainted* can acquire the disease.

Among congenital syphilitics can one count on any as being immune? He says only those who, at birth or a short time after, showed the characteristic secondary lesions of inherited syphilis from an infection *in utero*.

Inheritance of Syphilis. NEUMANN. (*Wien. k. Woch.*, xvii No. 20, J. A. M. A., July 23d, '04.)

Neumann grants that the influence of a syphilitic mother is much greater than of a syphilitic father, but he is convinced that the father can transmit the disease to the fœtus while the mother remains entirely free from infection. He cites seven such cases from his private practice—cases that he has followed for years—and in no instance has the mother shown any trace of syphilitic trouble, while the father and child have each presented unmistakable evidence of the disease.

In fourteen other cases observed in his clinic, the mother was apparently sound, but gave birth to a child with various stigmata of syphilis.

In another series of six cases where the father suffered from the severe forms of the disease, pregnancies terminated either in abortions or the birth of markedly syphilitic children, the mother in each case remaining free from any trace of the disease. He believes that a post-conceptional syphilitic infection may affect the fœtus even at a very late stage of the pregnancy.

Hydrocephalus of Syphilitic Origin. GLATTI. (*Wien. k. Woch.*, xvii No. 25, J. A. M. A., Sept. 17, '04.)

In a family observed by Glatti a syphilitic taint showed itself in an early hydrocephalus. The cause was unrecognized in the first of three children and the baby died of marasmus. The other children were restored to health by energetic mercurial treatment.

The size of the heads were all within normal limits though rather large—a somewhat rapid increase in size having been noticed. In looking back over the cases, attacks of screaming and restlessness during infancy were considered as further evidence of hydrocephalus.

These cases show how little dependence one can place on the parents'

statements—both scouted the idea that the symptoms in the fatal case could possibly have a syphilitic origin. Glatti advocates an immediate mereurial treatment in every case of hydrocephalus of doubtful origin.

The Neapolitan School treats every case of hydrocephalus by innunctions, and the successful results observed are probably due to the fact that a large proportion are of syphilitic origin.

Inherited Syphilis. GAUCHER. (*La Syphilis*, Vol. 2, p. 87.)

In a clinic at Saint Louis Hospital Prof. Gaucher showed three patients with inherited syphilis who had contracted the disease. In two of the cases the antecedent syphilis was probable, while in the other he felt certain of the facts, calling attention to the eyes, teeth, stature, etc., as proof. He says: "Some one may ask if the same dystrophies cannot be due to some other infection than syphilis?" To which he replies, "Yes, but syphilis is the only chronic fœtal infection which allows the fœtus to live—the others kill it."

He showed a woman bearing the characteristic marks of inherited syphilis and showing three indurated chancres on the vulva.

Next he presented a young woman with a much more remarkable history. The only sign of inherited disease which she showed was a sunken bridge of the nose due to a tertiary syphilitic ulceration when she was four years old. (She is now twenty-three.) She contracted syphilis from her first husband seven years ago; three years later she had a miscarriage; two years ago she married a non-syphilitic man by whom she had a baby ten months ago—this baby showed no other dystrophy than enlarged superficial veins in the scalp—but has lesions of secondary inherited syphilis; *viz.*, mucous plaques of the mouth and arms. This woman, seven years after contracting syphilis and showing no actual syphilitic lesions at the time, impregnated by a healthy man gave birth to a syphilitic child.

What Gaucher considers still more remarkable is that the patient says her mother was syphilitic. She had thirteen children, only three of whom lived. The mother contracted the disease from a nursing (chancre of the breast) after her second child and fifteen years before the patient's birth. Patient's father died in the Saint Louis hospital with syphilitic symptoms. Now then, here is a baby, the child and grandchild of a syphilitic, who shows the secondary lesions of inherited disease.

In summing up he says, this is a woman born of syphilitic parents who had a syphilitic ulceration of the nose during her childhood and who contracted the disease at the age of sixteen—and seven years later after having been well treated gave birth to a syphilitic baby in spite of ancestral syphilis and in spite of treatment. Here is another example of the many troublesome things in the course of syphilis. Ought syphilit-

ics to be prevented from marrying? If allowed to marry they should be told that they cannot be assured freedom from syphilitic manifestations either in themselves or their children and advised to keep up their treatment.

Syphilis of Mothers and of the New-born. MRACEK. (*La Syphilis*, Vol. 1, p. 74.)

In this review are given the results of his investigations in a large number of syphilitic women and children. He divides the women into groups according to the age of their syphilis. Syphilis can easily pass unrecognized in women. Of one hundred and twenty-nine women manifestly syphilitic studied by Mracek, seventy-seven were ignorant of their disease.

He says that tertiary lesions themselves ought to be looked upon as contagious because women having had a gumma can give birth to a syphilitic child even after the lesion is cured. Treatment of the father does not suffice to save the fœtus but treatment of the mother gives very good results.

Among the offsprings of the women studied, eighteen had hæmorrhage syphilis, thirty-four osteo-chondritis and 80 per cent. hepatic syphilis. Affections of the spleen, intestines, heart, lungs, brain, skin, etc., were also noted. The general mortality was 90 per cent.

In 47 per cent. of the cases the placenta showed such changes as increase in size and weight, large cell infiltration of the villæ, occlusion of the vessels, hæmorrhages, fatty degeneration, etc.

The changes were usually on the fœtal side of the placenta. The placenta is changed throughout in cases where the infection dates from conception.

Death of the fœtus is due to severe organic lesions, to the action of toxins, to inanition and to placental hæmorrhages—of course, the earlier the fœtus is infected the more severe its disease.

The long period during which the maternal syphilis remains transmissible to the fœtus makes it necessary to subject these syphilitic women to a very prolonged course of treatment.

Marginal Glossitis and Inherited Syphilis. GAUCHER. (*La Syphilis*, Vol. 1, p. 59.)

Prof. Gaucher remarks on the frequency of the marginal glossitis developing on the so-called geographic tongue—and thinks this congenital condition, where the mucous membrane is fissured, etc., favors the development of various parasitic affections—that is, through a point of least resistance.

He has never seen malformation of the tongue except in subjects tainted with hereditary syphilis. He does not claim that it cannot exist

in others, but he has never seen it. Furthermore he has never seen a lingual leucoplasia end in a cancer of the tongue, except in syphilitics.

Treatment of Inherited Syphilis by the Iodized Oils. LAFAY. (*La Syphilis*, Vol. 2, p. 92.)

Bellencontre, Dornbüth, Dubar and others have noted a marked improvement in nutrition and weight and a distinct influence on local lesions in hereditary syphilitics following the use of iodized oils. In fact, iodine seems to them to be indispensable and the best remedy for combatting those dystrophies of all sorts which make up the "scrofula of syphilis" of Ricord.

Lafay quotes a case reported by Pillement of an inherited syphilitic, thirty years old, who was attacked by a double keratitis and ozæna. Treatment by mercury had not improved the condition, so the patient was then given iodized oil (ingestion) and at the end of three weeks the corneæ were clearing with normal vision in one eye and one-third in the other. The ozæna was cured without local treatment.

In May, '02, Bellencontre reported some cases of interstitial keratitis at the Congress of Ophthalmologists. In eight cases treated six were clearly of syphilitic origin (inherited). They had received mixed treatment and injections of cyanide and biniodide of mercury without results. The iodized oil, by injection, brought about a rapid and striking transformation, both local and general. The corneæ cleared, the vision improved and the wasted tissues resumed their normal aspect. This treatment seems to act quicker and better in cases of interstitial keratitis than does mercury.

It is especially in this affection that he has recognized its value and usefulness. Employed alone, without local treatment, it suffices to relieve and cure lesions that have not been improved by a prolonged mixed treatment.

He says the iodized oil can be considered a specific in interstitial keratitis of inherited syphilis. He also speaks of the appearance of quite large quantities of iodine in the milk of women taking iodized oil so that nursing syphilitic babies can easily be treated in this way.

Two Cases of Acquired Syphilis in Hereditary Syphilitics. GAUCHER and ROSTAINE. (*La Syphilis*, Vol. 2, p. 235.)

Gaucher and Rostaine showed two patients before the French Society of Dermatology and Syphilography, bearing undeniable marks of inherited syphilis and each had recently acquired the disease by contagion.

M. Fournier made the following remarks: "The observations of M. Gaucher belong to a fairly large class of cases where one has seen syphilis arise and develop in patients who are not syphilitic but who have

the dystrophies of inheritance. What we would like to see is an inherited syphilitic showing symptoms of secondary syphilis at his birth, later catching the disease. I do not know cases of this kind."

Venous Dilatation in an Inherited Syphilitic. EMERY, DRUELLE and UMBERT. (*La Syphilis*, Vol. 2, p. 287.)

The authors report the case of a young girl of fifteen with a congenital dilatation of several of the superficial veins—probably of syphilitic origin. She had several ulcerating gummata on the leg which responded promptly to mixed treatment.

Edward Fournier¹ has studied these cases and considers the congenital dilatation of superficial veins as a part of a general venous dystrophy, seen most often in the dilatation of the superficial veins of the forehead and temples.

Aside from the characteristic specific ulcers of the leg the girl presented no other sign of syphilis past or present. There was no evidence of trouble with the eyes, ears, nose, or teeth. She was well developed with a well formed head and was of average intelligence. There was no evidence of an early acquired syphilis.

The superficial veins of the abdominal wall were symmetrically dilated and had always remained the same size, never increasing or diminishing. No trace of disease of the liver either past or present could be made out.

There was also a moderate dilatation of the veins of the forearms and over the forehead.

With the positive syphilitic character of the ulcers of the legs—and the lack of other causes for the venous dilatation, corroborated by the findings of Fournier in such cases, the authors feel that they have to do with a case of *hérédo-syphilis tardive*.

Photographs of the ulcers and of the dilated veins of the abdominal wall accompany this article.

Contribution to the Study of Inherited Syphilis. JORDAN. (*Münch. med. Wochens.*, Aug., '03. *La Syphilis*, Vol. 2, p. 313.)

For the most part inherited syphilis shows itself in the child within a few weeks after birth, but there are cases where the disease remains latent until about the age of puberty, the manifestations being of the nature of tertiary lesions. These cases have been given the name *syphilis héréditaire tardive*. They may be divided into two classes, the first and largest group where, at the age of puberty or later, the individual is attacked by syphilitic symptoms, he having suffered from the disease in infancy, but having been apparently cured. The second class

¹ *Stigmata dystrophiques de l'hérédo-syphilis*. These de Paris, '98.

Des dystrophies Veineuses de l'hérédo-syphilis. *Revue d'Hygiène et de Médecine Infantiles*. 1902.

is where the disease first appears about the age of puberty as tertiary lesions without former manifestations of any kind.

The first class of cases is generally admitted, while the existence of the second is sometimes questioned.

He then reports two interesting cases belonging to the second class.

SYPHILIS OF THE NERVOUS SYSTEM

By J. M. WINFIELD, M.D., Brooklyn.

Syphilis of the Nervous System. Dr. H. DOUGLAS SINGER. *Med. Herald*, Sept., 1904.

Dr. H. Douglas Singer read a paper before the Sioux Valley Medical Association. After a general introduction to the subject, the author says:

"The diseases due to syphilis of the connective tissues of the nervous system may be divided into two classes thus:—

1. Affections of the supporting framework or of the membranes.
2. Affections of the blood vessels, and a third class which must be included under the head of the para-syphilitic diseases."

Group 1 includes all those diseases in which there is a syphilitic inflammation or new growth; group 2 includes thrombosis, aneurism and hæmorrhages. The vessels most often affected in the brain are the middle cerebral and in the cord those of the middle dorsal region. The para-syphilitic group includes those diseases in which the casual relation of syphilis is undoubted, yet in which research has failed to demonstrate any anatomical change typical of syphilis—under this group are placed tabes and paresis.

In concluding, the author points out an important lesson, that of early diagnosis before the onset of hemiplegia or paraplegia. He also gives a word of warning regarding treatment, when the diagnosis of syphilitic disease of the vessels of the brain is made, *do not* administer potassium iodide; the proper method is to get the patient well under the influence of mercury to cause absorption of the products of the syphilitic disease.

Syphilitic Hemiparesis. Dr. HENNEBERG. *Berl. klin. Woch.*, Sept. 5, 1904.

Dr. Henneberg reported before the Society of Charity Physicians, the following cases: woman aged forty-two, married, had had three children; two died in infancy, no cause given. She became infected with syphilis when she was twenty-seven. For the last five years she had shown signs of mental disease. She was admitted to the hospital suffering from hemiparesis; died fourteen days after admission. The autopsy showed thickening of the walls of the basilar veins with marked evidences of endarteritis, small-cell infiltration but no gummatous deposits.

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VARICELLA ACCOMPANYING HERPES ZOSTER.

By WILLIAM THOMAS CORLETT, M.D., Cleveland.

THE clinical phenomena which constitute our present understanding of varicella does not permit of that certainty of diagnosis which the laboratory investigations already made give promise of supplying.

The eruption herein reported, however, presented in a typical form that observed in varicella, and its association with herpes, together with its appearance in the adult, render the cases of unusual interest and, I think, worthy of record.

CASE 1. In August, 1900, the first case of what was thought to be varicella occurring in the adult came under my observation. The patient was a woman, aged about forty-eight, who did not remember ever having had varicella. The disease for which I was asked to see her, herpes zoster, had commenced about five days previously, and involved the lateral surface of the neck, thence over the shoulder and down the arm. It also extended to the trunk in the vicinity of the left mamma, which indicated that the third, fourth and fifth cervical nerves were probably involved. The patient was prostrated from the severity of the attack, and said she was run down by social duties, and was likewise suffering from the cessation of the menopause. While examining the case, I was struck with a diffuse eruption scattered over the trunk, and to a less extent on the extremities. On the back, where the eruption was most abundant, there were about a half-dozen, well defined, superficial, vesicular lesions, which on puncture completely flattened, discharging a clear fluid. The striking similarity of the lesions to those of varicella was at once apparent. The distribution of the eruption likewise corresponded to that observed

in chicken-pox. It occurred to me that the vesicles might be secondary to the herpetic eruption which had arrived at the suppurating stage and were possibly the result of auto-inoculation. At the same time, from the typical nature of the vesicles, the only conclusion tenable was that the patient had an attack of herpes occurring simultaneously with varicella. This opinion was concurred in by an eminent colleague who saw the case.

About two years later a similar case came under observation which was studied more in detail, as shown by the following notes which are taken from the hospital records and made by Dr. J. H. McHenry, resident physician in my service at that time, to whom I am further indebted for the photographs illustrating this case.

CASE 2. C. F., male, aged forty-four, was admitted to Lakeside Hospital December 1, 1902, with the following history:

The patient said that on November 26 a small pimple appeared on his forehead, but was thought little of at the time. The next day, November 27, it seemed to increase in size. Two days later it had enlarged to the size of a silver dollar, and was very red and swollen, so much so that in wearing his hat it was a source of distress to him. It continued to spread over his forehead and began to itch and burn. He then consulted a physician who gave him a lotion, and told him to take some "salts." Not deriving relief, he entered the hospital four days later.

Present Condition.—Patient is well built and well nourished, muscular, no superfluous flesh, weight one hundred and eighty-five pounds.

The left side of the patient's forehead is quite red and swollen, the inflammation extending down over the left eye and over a small portion of the cheek, also upward on the scalp. About the left eye is considerable œdema.

The margin of the eruption is well-defined, somewhat irregular in shape, and the lesions consist of an elevated reddish plaque studded with coalescing vesicles varying in size from a millet-seed to that of a pea. A few isolated vesicles of varying sizes are likewise seen, although for the most part they are in clusters or groups. The vesicles are filled with clear fluid, although some are becoming turbid, and are situated on a hyperæmic elevated base. Some of them are tense from complete distention. After rupture a red, glazed base is disclosed. The vesicles are more prominent at the roots of the hair.

Temperature 99.02°, pulse 114, respiration 22.

Tongue slightly coated, chest normal on inspection and palpita-

tion, on auscultation a few moist râles may be heard posteriorly at the sixth rib on the right side. The heart sounds are normal.

Urine: Sp. gr. 1019, negative to sugar and albumin, slightly cloudy sediment; the microscopic examination showed a few leucocytes, a few hyaline casts and bacteria.

December 2: Patient about the same, applied lead and opium compresses to the face. Diagnosis, Herpes Zoster Frontalis, the region supplied by the first or ophthalmic division of the fifth nerve.

December 3: Nurse noticed on bathing patient in the morning an eruption on the chest, arms, legs and back. Temperature 100°, pulse 96 at 8 A. M. This eruption was in the form of rosy macules slightly elevated, surmounted in some instances by a superficial vesicle, the latter were more abundant on the trunk posteriorly. Patient had no other symptoms. Moved to isolation ward. Diagnosis, Varicella.

December 4: Patient comfortable, vesicles of herpes beginning to lose their tenseness and the hyperæmia decreasing. Macules of varicella fading, number not increased.

December 6: Temperature and pulse normal, and œdema of the eyelid not so marked. Conjunctiva quite inflamed, which was irrigated with boracic and saline solution every two hours, and ice compresses put over the eye. Vesicles of the herpetic area drying and shrinking, redness and glazing of the skin almost disappeared. Varicella eruption on the body markedly diminished, dessication already in progress, forming thin, light superficial crusts, while here and there new macules have appeared.

December 8: All signs abating. Temperature and pulse normal. Conjunctivitis improving. All redness disappeared in herpetic area and only the vesicles at the border remain, and they are shrunken.

December 10: Desquamation is marked with disappearance of herpetic lesions. Only ones now visible are the varicella lesions on the trunk, some of which show umbilication, although the majority present an oval contour and all are superficial. No scars can be made out after the disappearance of the varicella lesions.

December 14: All signs of varicella have disappeared. Conjunctivitis very slight. Œdema of the eyelids entirely absent. Herpes drying and disappearing.

December 16: Patient was discharged. Varicella disappeared, while there were but slight evidence of the herpes remaining.

Bacteriological Report.—One of the largest varicella vesicles was opened and the contents allowed to run into a sterile test-tube. Cultures were made upon different media and left in the thermostat

from forty-eight to sixty-two hours, with negative results from all tubes.

A notable feature, if we interpret this eruption to be varicella, is the slowness of the successive crops of the eruption, although the active eruptive process lasted less than a week.

CASE 3. A. R., male, aged forty, American born, was seen in consultation for herpes zoster, accompanied by a vesicular eruption, of which no notes were taken, but which correspond to the picture presented in Cases 1 and 2. The case was seen but once.

CASE 4. H. M., aged seventy, German nativity, laborer, was seen first at Lakeside Hospital Dispensary, August 3, 1904. He complained of a neuralgic pain in the left leg with an eruption of three days' duration.

The family history is negative.—The patient denies all disease of childhood and adult life, except one attack of angina pectoris three years ago. Says he has never had chicken-pox and never had an eruption similar to the present one.

Physical Examination.—The patient is a tall, well-preserved man for his age. The pupils react to light and accommodation, the conjunctiva is clear. There is a marked sclerosis of radial and brachial arteries. The pulse is regular and rhythmical, 72 per minute, respiration 16, tongue coated, patellar reflexes normal.

Thorax: Slight bulging of the right side of chest, hyperresonant on percussion, expiration prolonged.

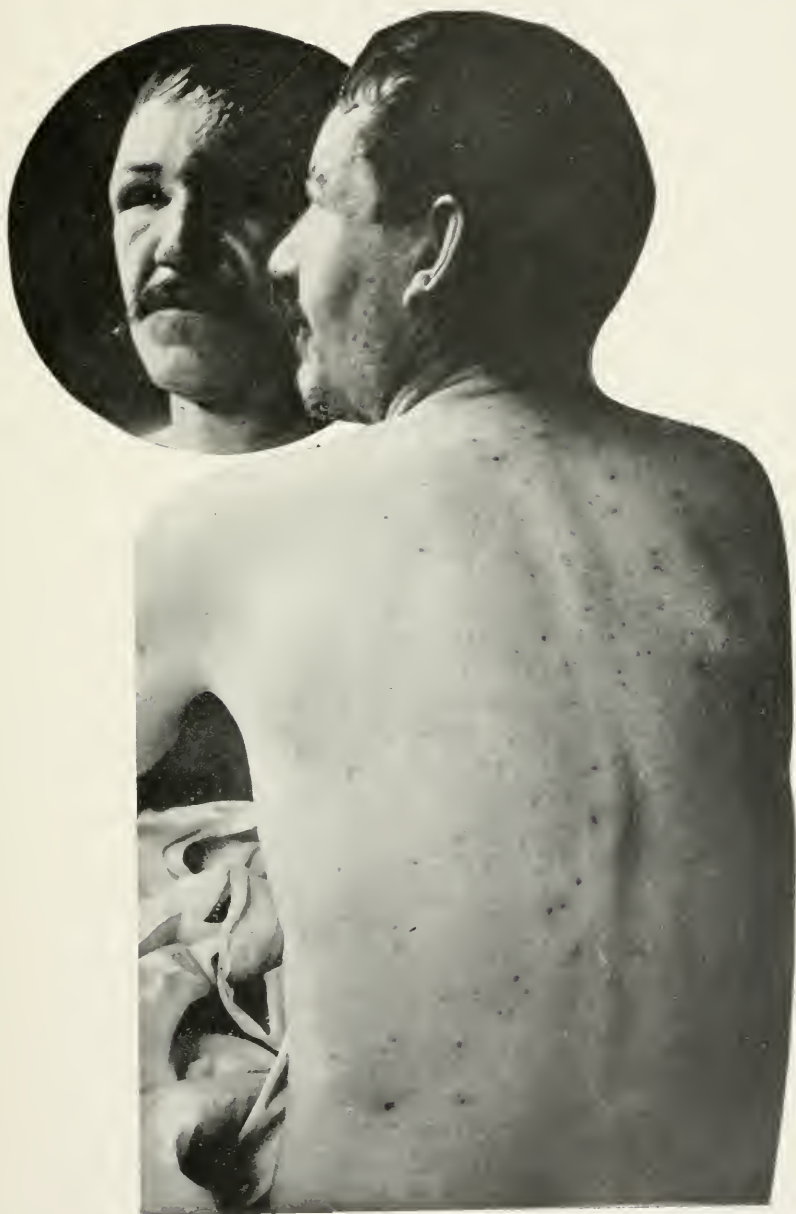
Heart: Apex in fifth interspace in midclavicular line. Upper cardiac dullness at third rib. The right border is found at the left margin of the sternum, there is a slight systolic murmur at apex, and the pulmonic second is accentuated.

Liver, spleen and kidneys not palpable. No glandular enlargements. External inguinal ring enlarged.

Urine: Dark amber, sp. gr. 1028, faint trace of albumin, no casts.

Skin: There is a vesicular eruption on the left gluteal region and on the left side of the dorsum of penis, the area supplied by the second lumbar nerve, which is arranged in clusters and situated on a reddish elevated base, representing the lesions of herpes zoster. This is accompanied by a papulo-vesicular eruption on the trunk which differs clearly in clinical appearance. The lesions begin with a well-defined irregular areola, most prominent at the margin and gradually fading away as it approaches the papule in the center. These papules go on to vesiculation producing all the appearances of a

PLATE XXIX—To Illustrate Dr. W. T. Corlett's Article.



chicken-pox eruption. They are superficial, one prick of a pin causing them to collapse with a discharge of a watery exudate. When the vesicle does not rupture, the contents gradually takes on a turbid appearance, which finally goes on to pustulation. The eruption is best marked on the back, where at the same time one may see reddish spots or macules, papules pinhead in size or larger, beginning vesicles, small pea-sized vesicles and pustules in various stages of formation and dessication. On the abdomen and chest there is a similar eruption, but less characteristic. There are a few papules of irregular character on the forehead.

These cases are unique in my experience.

First—Because of the association of the two eruptions.

Second—Because adults were the subjects of a varicella-like eruption.

In regard to the first, it may be that the co-existence or association described is not unknown to childhood. Two cases have come under my observation in children which were suggestive of the condition described, although they appeared either too late in the course of the disease and at too uncertain intervals to arrive at any definite conclusion as to their nature.

Among the complications of herpes observed by Head¹ in 378 cases, varicella occurred in one instance. The patient was a boy, in whom zona appeared on the fourth day of an indefinite illness with vomiting, pain in the side and a temperature of 101°. The eruption of herpes corresponded to the area supplied by the fifth dorsal nerve. This was followed in twenty-four hours by an outbreak of chicken-pox eruption. In this instance, as in those herein reported, the co-existence of the two diseases had no appreciable influence on each other.

Finally, it may be said, experience of the past few years has convinced me that varicella in the adult is far less uncommon than was formerly supposed.

¹Head, Henry, Herpes Zoster or Zona, article in *Allbutt's System of Medicine*, vol. 8, p. 630, New York, 1901.

A CASE OF ACUTE MALIGNANT PEMPHIGUS (P. VEGETANS?), WITH AUTOPSY REPORT.

By OLIVER S. ORMSBY and PETER BASSOE, Chicago.

THIS case is recorded on account of its close resemblance to, or its identity with, the rare and fatal malady, pemphigus vegetans of Neumann.

The patient, a woman, Jewish, aged thirty-five, was admitted to the Presbyterian Hospital May 9, 1903, and assigned to the service of Dr. Frank Hugh Montgomery, to whom we are indebted for the privilege of reporting the case.¹

Past Personal History.—She has had none of the diseases of childhood except measles, which she had at ten years of age; was a healthy child, so far as she knows; had *la grippe* two years ago, but otherwise has always had good health; denies any specific disease.

History of Present Disorder.—For three months, the patient says, the tonsils have been swollen and the throat sore. Three weeks ago she went to a specialist, who swabbed out her throat and gave her a gargle, after which the throat immediately became worse, and the tongue, lips, gums, and nose became swollen and sore.

Examination on Admission.—Chest, negative on percussion and auscultation. Abdomen, negative. Mouth and throat: The throat and tonsils were swollen, moderately red, and, she says, painful. The rest of the mouth and inner surface of the cheeks were covered with small vesicles and patches from which the mucous membrane was excoriated; the gums were swollen and tender; the teeth loose and in bad condition; the tongue fissured and bleeding, covered with a whitish fur; salivary flow slightly increased; the breath very offensive; the lips fissured and bleeding, and covered with crusts composed of dried blood and exuded serum.

Skin: Upon the skin of the chest were several areas the size of a twenty-five-cent piece, from which the epidermis was excoriated. These lesions were covered with crusts, consisting of dried serum, pus, and blood, and bled readily when the crusts were removed. Upon the chin was a lesion similar to those on the chest and about the size

¹ The history in the hospital was taken by the interne, Dr. Fowler, who later also made the blood counts and urinary examination.

of a five-cent piece. Scattered over the anterior surface of the chest, posterior surface of both arms, and the dorsal area between and below the scapulæ, were several small vesicles, containing a clear, serous fluid, and varying in size from a millet-seed to a split pea. These vesicles were circular, and when ruptured exposed a red, bleeding, granular surface, which rapidly enlarged by peripheral extension.

After her admission, for a short time, she apparently improved, but the lesions on the skin continued to develop, and few showed evidence of healing; the primary lesion being always a vesicle or bulla, which enlarged, and when not protected, became crusted. As the patient was constantly swathed in oil, the formation of crusts was prevented. The majority of the lesions were superficial, bled readily, were tender, and by enlargement peripherally and by coalescence would soon form very large areas. A few were deeper and showed some hypertrophic granulations, and several presented beginning vegetations, especially those lesions found about the groins. The vegetations were not so typically developed, however, as is usual in pemphigus vegetans. Possibly, the antiseptic oil dressings altered the appearance or development of these lesions. The lesions were the seat of marked burning and painful sensations. Eventually, a large part of the cutaneous surface became involved and the epidermis removed. The scalp, palms, and soles were the only parts spared; the face, neck, arms, and trunk being extensively involved. For the last three or four days of her life it became almost impossible to do anything at all with the patient on account of the intense suffering caused by the slightest movement. The lesions about the lips and nose crusted extensively, and toward the last one eye became completely surrounded with the crusts and the eyeball was inflamed. There was always a disagreeable odor exhaled from the patient, which later became very marked.

The patient was quiet and somewhat dull, but her mind was clear to the last. Only six hours before death, when informed that the end was inevitable, she was able to give the details of her financial affairs and expressed her wishes as to the disposition of her finances. She constantly complained of painful swallowing, but this was partly overcome by the use of orthoform, which was suggested in this case by Dr. George E. Shambaugh. She daily had some elevation of temperature. On admission, and for ten days afterwards, the morning temperature was normal, the evening temperature being about 100. There was no marked elevation of temperature, however, until one week before death. During the last week it varied from 100.2 to

106. F. The pulse and respiration varied in proportion with the temperature.

On June 6, twelve days before death, Dr. Sippy examined the patient with the following findings:

Liver, soft, apparently not indurated, and reaching two and one-half fingers' breadth below the costal arch in the mammillary line.

The spleen not palpable.

Heart tones normal. Cannot percuss on account of pain. Apex visible in the fifth interspace, just within the mammillary line.

No râles in lungs.

Submaxillary glands enlarged on left side.

No œdema of the extremities.

A number of urinary examinations always revealed albumin, which varied in amount from a trace to a considerable quantity. Epithelial cells were always present and increased as the disease advanced; also a number of erythrocytes and leucocytes. The specific gravity varied from 1015 to 1025, and the quantity in twenty-four hours from 275 to 650 ccs. Its color was reddish or dark amber, and it was uniformly turbid.

Cultures made from vesicles and from mouth lesions during life developed nothing unusual. Blood cultures made in the usual manner proved sterile. Two blood counts were made, the first on May 13, which showed 3,800,000 erythrocytes, 12,050 leucocytes, and 80 per cent. hæmoglobin; on the 24th of May, 5,800,000 erythrocytes and 15,100 leucocytes, with 96 per cent. hæmoglobin.

The early involvement of the mouth, with vesicles and ulcers, followed by vesicles, bullæ, superficial excoriations on the skin, also some crusting and slightly vegetating lesions, with the progressive emaciation, weakness, and rapidly fatal termination, all tend to place this case in the category of pemphigus vegetans. In some respects, the case resembles that of Case 3 reported by Howe⁷ (Boston) under the title, "Bullous Dermatitis following Vaccination." His case was rapidly fatal, and presented mouth and cutaneous symptoms very similar to this. In our case, however, vaccination could have played no part. In the cases reported by Hamburger⁶ and Ruebel, of Johns Hopkins, in 1903, and by Jamieson and Welsh, of Scotland, in 1902, more markedly vegetating lesions were present, but they were not so rapidly fatal. In the former case a pseudo-diphtheritic bacillus was isolated from the lesions in the mouth, similar to the one previously isolated from the blebs in a case of pemphigus vegetans by Waelsch. We were not able in this case to obtain a similar bacillus either from bullæ on the skin or from the mouth lesions.

DR. BASSOE'S AUTOPSY REPORT.

"The autopsy was held nine hours after death.

"*Anatomic Diagnosis.*—Multiple areas of necrosis of the skin of face, neck, trunk, upper and lower extremities. Acute bronchitis. Œdema and congestion of lungs. Ecchymosis of pelvic peritoneum. Slight interstitial nephritis. Partial atelectasis of middle lobe of right lung. Localized fibrous pleuritis (right). Calcification of tracheo-bronchial lymph glands.

"The record begins as follows:

"The body is that of an emaciated, middle-aged woman. Rigor mortis is present, also slight posterior lividity. Around the mouth the skin is covered with a dark crust, on separation of which a pale skin surface is left, the necrosis involving only the epidermis. Beneath the nose are a number of similar crusts, and a reddish hæmorrhagic surface is exposed. The right eye is entirely surrounded by crusts, resembling those above described. There are also similar crusts about the inner canthus of the left eye. No lesions are found on the scalp.

"Nearly all other skin lesions consist of a superficial necrosis, resembling burns of the second degree and sharply circumscribed. The necrotic skin is generally dry and dark-grayish red. No blebs are seen anywhere.

"The distribution of the lesions may be seen from the accompanying illustrations. The detailed description of the organs will be omitted, as the changes found are enumerated in the anatomic diagnosis. The brain was small, weighing 1150 grammes.

"*Histological Examination.*—The thymus is, for the most part, replaced by fat, but a few Hassall's bodies are seen, surrounded by lymphoid tissue. The capillaries of the adipose tissue are packed with red cells. In the fat spaces are several oval or polyhedral cells, with sharply outlined vacuoles, surrounded by a row of dark granules (hematoxylin-eosin stain). Similar cells are seen in the larger masses of lymphoid tissue. In the latter are many free red cells. The thyroid gland shows no change.

"The lacunæ of the tonsil are filled with round cells and faintly stained epithelial cells, showing fatty degeneration. There is marked hyperæmia of the lymphoid tissue.

"In the lung, extensive hæmorrhagic areas are seen, in which the alveoli are filled with blood. The septa are thin, and the epithelium has disappeared for the most part. The vessels are greatly engorged. In the remainder of the section, the alveoli contain a

granular material mixed with blood. The bronchi also contain blood and granular material. Near them accumulations of mononuclear round cells are seen. In the right middle lobe no normal alveoli are seen. The section is composed chiefly of fibrous tissue, containing coal pigment. The vessels are very abundant, large, and filled with blood. Their walls are thickened. The bronchi are numerous, their epithelium is cylindrical, and they contain homogeneous, light-bluish material (mucus). Here and there remains of compressed alveoli containing desquamated epithelial cells may be seen.

"Spleen: The trabeculae are prominent, and the Malpighian bodies are small. The pulp is greatly engorged with red cells. Much free blood pigment is seen.

"Tongue: A considerable amount of blood adheres to portions of the external surface. In places, shreds of mucosa are found among the blood cells. There is no break in the mucosa, but abrasions of the superficial layers only. The submucous tissue is hyperæmic. The muscle of the tongue and the salivary glands are normal.

"The section of the stomach through the pyloric ring shows no change. The liver is very fatty, and the pancreas shows no change.

"The adrenal shows a moderate amount of post-mortem necrosis, especially in the medulla.

"The kidney shows a moderate localized thickening of the capsule. The glomeruli appear normal; some of their capsules are slightly thickened. The epithelium of the convoluted tubules is swollen, poorly staining in places, and frequently vacuoles are seen in the inner portion of the cells.

"The uterus shows no change.

"Sections of the skin from the margin of an ulcer on the leg show the edge of the epidermis to be overhanging; the ulceration extends to the superficial layers of the corium. In places, arteries are lying on the exposed surface; their walls are thickened; the intima is smooth. The vessels are distended and filled with red cells. Throughout the corium are masses of round cells of varying appearance; some have deep-blue nuclei and eosin-stained cytoplasm in varying amount; others take both stains faintly. Some have the appearance of plasma-cells in polychrome-blue specimens. Gram-Weigert specimens show large masses of staphylococci among the round cells. The deep layer of the corium is less inflamed. The subcutaneous layer is uninvolved. The epidermis beyond the ulcer is œdematous.

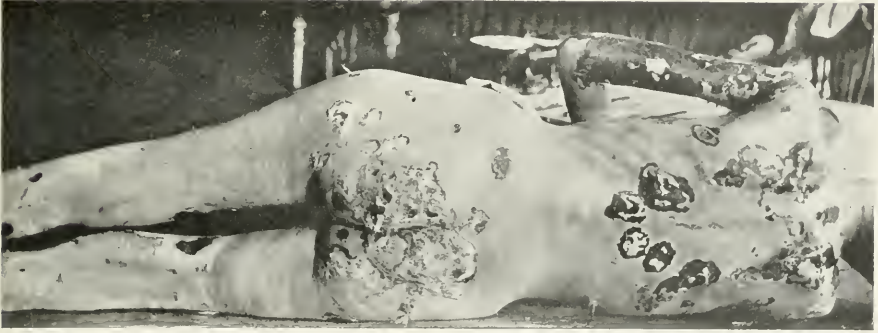


FIG. 1.



FIG. 2.

"Sections of the cerebral cortex from the frontal and occipital lobes and cuneus show no definite changes in Nissl and hematoxylin-eosin specimens. The medulla oblongata shows no cell changes, except possibly an abnormal amount of yellow pigment in the cells of the olive. No degeneration is shown in Marchi specimens.

"In the spinal ganglia, Nissl specimens show various stages of chromatolysis in the ganglion cells. In some of the cells, the nucleus is placed peripherally; in others obscured by an excessive amount of yellow pigment. The spinal cord shows no Marchi degeneration, and no definite cell changes can be made out in Nissl preparations. Sections from an intercostal nerve and from both sciatic nerves stained by the Marchi and hematoxylin-eosin methods show no change.

"*Bacteriological Examination.*—The heart's blood and pleural fluid were sterile. The bacillus coli communis was obtained from the liver, spleen, kidney, and peritoneal fluid. The staphylococcus pyogenes albus was present in the pericardial fluid.

"No cultures were made from the cutaneous lesions at the autopsy, as that had been done during life.

"It is thus seen that the bacteriological and histological examinations in this case fail to throw any light on the nature of the affection. We failed to find the small-celled infiltration of the spinal ganglia described by Marburg¹ in three cases of pemphigus; nor did we find the proliferation of ependymal cells and displacement of the central canal described by Schrötter.² The slight changes in the ganglion cells in our case, like the more severe ones in the case of Jamieson³ and Welsh, are most likely secondary, due to toxæmia. This view becomes the more probable when we bear in mind the fact that the cutaneous lesions in their distribution do not correspond either to that of spinal segments or to that of nerves, and also when we compare the slight changes found by us to the marked lesions in the spinal ganglia in cases of herpes zoster, as described by Head and Campbell,⁴ Hedinger,⁵ and others."

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CLINICAL AND MICROSCOPICAL REPORTS OF DERMATOLOGICAL CASES

By L. E. SCHMIDT, M.D., Chicago.

Attending Dermatologist to Alexian Brothers' Hospital and German Hospital; member of Chicago Dermatological Society, American Association of Genito-Urinary Surgeons, etc.

CHANCROIDAL INFECTION OF THE FINGER

A PHYSICIAN, thirty-four years of age, single, without any history of venereal infection, operated on an individual twenty-one years old, suffering from a typical phagadenic ulcer involving a large area of the right groin.

This patient of the physician gave no history, nor were any evidences of syphilis found at the time of the operation. Tissue was removed and preserved, but was mislaid, otherwise it would have been a help in the pathological examination of the case to be cited. The physician began complaining sixty hours after having operated, of an infection which occurred on the thumb of the left hand where the usual hang-nail occurs. The lesion was pinhead in size, somewhat linear, very superficial, ulcerative in character, the whole surrounded with a slight inflammatory zone, and was exceedingly painful, especially to the touch. A free incision was made thirty-six hours after the appearance, and warm, moist, 1 to 5,000 bichloride of mercury solution applications were made. The process continued and spread three-fourths around the thumb nail; the general appearance remained the same. The redness and slight induration did not reach half way down to the phalangeal joint. Again incisions were made and the same treatment was continued. On the evening of the seventh day severe and repeated chills, with fever of 101 F., set in. The following day the axillary glands became exceedingly painful and much enlarged, although they were palpated some days previously. On the eighth day three longitudinal incisions parallel to the outer edge of the finger nail were made, reaching the periosteum of the phalanx. Moist dressings of the entire hand, arm and axillary region were made. The following day the fever continued, the patient began to complain of malaise, loss of appetite, headaches, backaches; however, the pain in the arm and finger were much diminished. On account of all the above symptoms increasing, especially

the pain in the head and neck, and on account of the high temperature, 105 F., the axillary glands apparently all involved, Dr. L. I. MacArthur removed the entire axillary gland chain in one mass, half of the thumb nail, with nearly all the corresponding matrix and all diseased surrounding tissue. Thorough tube drainage was left in the axillary space. The first day after the operation the temperature was 104.5 F., and gradually dropped, in the course of seven days, to normal. The first twenty-four to thirty-six hours after the operation the patient suffered from intense pain in the neck; the general symptoms in the course of the first week diminished. At the end of the third week the axillary wound healed and the wound on the thumb, which was allowed to heal by granulation, required some six weeks previous to complete healing. The patient was watched closely, and no sign or symptom of lues appeared.

The glands showed microscopically all the appearances of chancroidal glands. On section the glands involved were seen to be studded with pinhead and large-sized abscesses. Although all the glands were removed, yet all were not infected, though probably most of them were enlarged.

The tissue removed from the finger has, microscopically, the character of a granulation tissue supplied with many large, thin-walled vessels. None of the vessels shows any obliterating proliferation of endothelial or subendothelial elements. No endophlebitic processes were present. Hence the tissue has no characteristics of an initial syphilitic sclerosis. Gram's stain showed no bacteria. Loeffler's alkaline-methylene-blue solution showed here and there a very few bacilli. These appeared to be identical in the description of Unna, with the bacillus Ducrey-Unna. The tissue of the glands also showed similar bacterial findings. From all this it is believed that the infection had its origin from chancroidal virus.

CASE OF POROKERATOSIS

July, 1898, a medical student, twenty-one years old, with a negative history as to any previous skin lesions, was examined. His history is as follows, as given by himself, May 15, 1904: The first lesion appeared about three months before the examination. It was on the left hand, at the end of an old scar, just at the metacarpophalangeal joint of the index finger, on the radial side. This was excised. A few months later it reappeared, in a practically symmetrical position on the right hand. This, too, was excised. The scar of this wound has always had a slightly keloidal appearance, but

otherwise normal. Within a year a third lesion appeared on the back of the left hand, between the metacarpo-phalangeal joints of the index and ring fingers and was also excised. It recurred within two months, but was not excised. Within a year it disappeared. Since then a gradual atrophy of the skin in the region of the scar has occurred, leaving an oval shining surface, 1×3 cm., without hair or glandular markings and with only one minute depression. This area cracked several times last winter and bled slightly. There is no elevation at the periphery, but it shades gradually into normal skin, having the scarcely perceptible scar in the middle of its axis. It is enlarging, but very slowly.

The illustration shows irregular, somewhat gyrating, involved areas, about the size of a five-cent piece. The borders are slightly elevated, somewhat smooth and rounded. The inner edge of this wall gradually, but slightly depressed, causes the centre to be lower than the outer edge of the encircling wall. It is of a smooth, shiny appearance—lack of all natural folds and depressions of the skin. All the parts are of an almost natural color except the central part, which is slightly anæmic; no redness around the involved areas (Fig. 1). The beginning appeared as a simple punctate elevation, gradually enlarging peripherally, somewhat irregularly, gyrating appearance due to several foci coming together. As they enlarged the centres became depressed, giving the appearance as already described. The material in this case had been partly fixed in Mueller-formalin solution and partly in alcohol. Only the sections from the former stained well. These sections show a very thick, horny layer, composed of eighteen to twenty-four lamellæ. Underneath these is a thin strip of stratum lucidum. The stratum granulosum is poorly marked and there is not much keratohyalin demonstrable. The stratum germinativum is of normal thickness and the innermost cells show quite a marked amount of pigment. A thickening of the malpighian layer is noticeable where the excretory ducts of the sweat glands are found. Here, in some sections a proliferation of the epithelium is noticeable. The derma appears thickened, and shows an increase of coarse connective tissue fibers. Here and there foci of embryonal fusiform connective tissue cells are found. The coils of sweat glands in the depth of the skin appear normal. Sebaceous glands were not found in the sections.

CASE OF NÆVUS PAPILLARIS

In a man of twenty-seven years of age, single, who came under observation for gonorrhœa, the following condition was noted (Fig.

2.). Beginning sharply midway between the median and outer border of the sternum of the right side between and partly over the second and third ribs, extending upward and backward, gradually tapering at the anterior axillary line at the second rib, numerous minute to pinhead-sized elevations corresponding to papillæ were noticeable, the top of each apparently desquamating, some more and others less. All except the uppermost portion had the appearance of normal skin. The whole area appeared slightly erythematous, which increased whenever the activity of the skin became more marked, as after baths and exercise. At no time did it ever give the individual any disturbance, although noticed since childhood, and was told that it had existed since birth. He was one of twins.

The tissue examined had been fixed in Zenker's fluid. The stains used were hæmatoxylin and eosin, eosin and alkaline-methylene-blue, carmin and Weigert's stain for elastic fibers. Sections show an epidermis not changed, or in areas changed but little from the normal, except that the rete pegs have almost completely disappeared in consequence of a flattening out or obliterating process due to an increase in coarse connective tissue fibers of the derma. These are embedded in this connective tissue, numerous and large, as it appears, considerably hypertrophied in the sebaceous glands. The sweat glands, likewise, are numerous and large. Only lanugo hairs were to be found. The connective tissue is intimately mixed and blended with elastic fibers. Most of them are of very moderate thickness, or they are quite delicate and slender. The tissues are fairly well supplied with blood vessels, particularly the deeper layers. In places the epidermis shows small vesicles formed by cornified desquamated poly and mononuclear leucocytes, and the tissues right next to the vesicles exhibit a slight inflammatory infiltration. No plasma or eosinophilic cells were to be found in the tissues. A small amount of free, finely granular pigment cells are found in the undermost layers of the derma next to the epidermis.

CASE FOR DIAGNOSIS

A. A., Italian, aged forty-six, bartender; had been married for past twenty years. Consulted me in August, 1903.

Family History.—Both mother and father died quite old. Was never sick to his knowledge. One brother and two sisters are living and are all well.

Personal History.—During the first fifteen years of his vocation was a heavy drinker; for over five years has not taken liquor in any form. Has always been a moderate smoker. Denies venereal infec-

tion of any kind in past twenty-five years; previous to that had two attacks of gonorrhea, which apparently took an uncomplicated course. The only sickness that he can recall was inflammatory articular rheumatism, seven years ago. Has had several slight recurrences. Has been perfectly well for the last three years. His wife has been pregnant three times, the first time seventeen years ago, the last time about ten years ago. He claims they were all aborted without any intervention, about the second to third month. His wife is living and appears to be in good health.

Present Sickness.—The patient dates his present trouble from January, 1903. At this time he was attacked with what his physician told him was tonsillitis. He was confined to his home for a week. Pain in his right ankle, the one which has been previously involved, set in as soon as he commenced to work. In February he was obliged to quit work on account of the severity of these pains. Other joints became involved, and from the description the trouble appeared to be acute articular rheumatism.

In the first week of March, 1903, for the first time, while a large number of the joints still were inflamed, and while still under medical treatment, there began to appear about both ankles, soon involving both legs as far as the knees, confined to the posterior aspect or flexor surfaces, at first minute pinhead-size, reddish papules. These in turn changed rapidly into pustules. With the treatment these disappeared, and a scaly condition of the involved areas persisted. Later the eruption advanced up the outside of both thighs and across the buttocks, undergoing the same metamorphosis. Still later the eruption advanced up the back of the trunk, being confined to the lateral parts, radiating slightly anteriorly. No sign, nor did any eruption occur in the median line posteriorly, or on the neck or face.

At the present time the areas involved present a pigmented condition, in places a more pronounced and possibly slightly circinate arranged areas over the entire involved portions. All of the skin is tense and has a brawny appearance. Dispersed very freely are dark, reddish-colored papules, in places papulo-squamous eruption throughout the entire parts affected. Again these are confluent, and form irregularly outlined areas. Especially on the abdomen one can see a distinct circinate arrangement of this manifold eruption. The flexor surfaces of both arms are almost free. At no time have the palms of the hands been involved, but on the dorsal surfaces are numerous dark-red pinhead-sized papules, which extend upward and are continuous with the eruption on the forearm. On the solar surface of the feet it

can be seen that in the arch and on all the toes a similar eruption has existed. At no time have the mucous membranes shown any sign of involvement.

While under observation distinct crops of papules over the entire involved area have occurred repeatedly. Previous to each eruption the patient complains of considerable itching, which passes quickly after the appearance of the eruption.

Six months after the beginning of the present trouble the patient had lost thirty-five pounds in weight, his appetite is poor, bowels irregular, sleeps poorly, and has complained of general malaise.

I might state that the patient regarded the eruption as one caused by medication. During the first two months of observation the patient had at indefinite periods, not related to the time of the crops of eruption, distinct pain in one or more joints. None of his medication appeared to have any influence, nor did it change the course, nor was it the cause of any of the eruption. A temperature of 99.5 to 100.5 F., has occurred; however, no definite type of fever existed.

On examination the heart and lungs were negative. The liver and spleen readily palpated and were certainly slightly enlarged. No pain elicited over any of the organs. The urine was repeatedly examined, and the only thing of note was the constant presence of indican. The blood was found at various times to have 97 to 98 per cent. hæmoglobin, the normal ratio of leucocytes to red blood corpuscles. The eosinophile cells were always within the normal limits.

Locally the patient received sulphur baths two or three times a day. Yet over the whole area, including the site of the previous eruptions, there occurred a fresh crop of small papules, most of them rapidly changing to pustules, the skin in general becoming brighter in color and more irritable. Bicarbonate of sodium baths were then ordered. Then at intervals sulphur baths were again carried out. No internal medication seemed to influence the general condition. Dr. R. R. Campbell was kind enough to examine the patient during a time when the patient had most of the afore-mentioned signs and symptoms. Having taken the history of his wife as regards abortions into consideration, Dr. Campbell advised hypodermatic injections of mercury. This systematic treatment, with but comparatively little local treatment, commenced to improve the condition slowly. At present, nine months after having seen the patient for the first time, all joint pains have disappeared, no new crops in past three months, increase

in weight and general condition improved to such an extent that the patient has returned to his vocation.

Skin was removed from different parts of the body for microscopical examination. From right side at lower border of ribs a section of a silver-dollar-sized circinate-squamous efflorescence was excised, and microscopically the epidermis shows a moderate degree of epithelial proliferation (Fig. 4). At several places the papillary layer is densely infiltrated with inflammatory cells. The infiltration extends inward into the papillary plate, and even into the subcutaneous tissue. The infiltration, however, is nowhere very intense and general, but it is moderately intense, more or less focal or defined to a number of spots. Right under the inner end of the hyperplastic interpapillary pegs a small abscess cavity filled with leucocytes is to be seen, mostly polynuclear leucocytes have here and there penetrated the epidermis where they are found between the epithelia.

Plasma cells and plasma mast cells are fairly numerous in the inflammatory foci, but eosinophilic cells are scanty, and none were found in the little abscess mentioned.

Skin taken from the calf of left leg showed pinhead-sized pigmentations, inflammatory infiltration same as already described. The pigmentation was due to pigment cells in the stratum germinativum (Fig. 3).

Skin taken from right upper and outer third of thigh shows pigment as above, also few pigment granules in the papillary layer.

CASE OF RHINOPHYMA

Man, aged fifty-five years. States that he noticed the beginning of his trouble twelve years ago. At present the tumors have reached the proportions as shown in Fig. 5. The operation, as carried out, was to excise elliptical pieces of skin with the attached growth, carefully dissecting from the surrounding skin on both sides down to apparently healthy tissue, thus removing the entire involved area. This was done with each nodule. The bleeding was stopped with hot compresses. Then in order to get perfect coaptation further excisions of skin were made wherever necessary. The parts were brought together in some places with subcutaneous sutures and in places with interrupted silkworm-gut sutures. Fig. 6 was taken three weeks after operation. This is retouched but very little. Six months after the operation the whole skin of the nose is smooth and the appearance perfectly satisfactory to himself.



FIG. 1.



FIG. 2.

PLATE XXXII—To Illustrate Dr. L. E. Schmidt's Article.



FIG. 3.



FIG. 4.



FIG. 5.



FIG. 6.

GANGRENE OF THE SKIN FOLLOWING THE USE OF STOVAINE, A NEW LOCAL ANÆSTHETIC.

By D. A. SINCLAIR, M.D., New York.

Lecturer in Genito-Urinary Surgery, N. Y. Polyclinic Medical School and Hospital.

STOVAINE, a new local anæsthetic discovered by M. Fourneau, equal to cocaine and to have a distinctly different vasomotor action, being a vaso-dilator while cocaine is a vaso-constrictor. It is claimed by its manufacturers to have anæsthetic properties, being a vaso-dilator while cocaine is a vaso-constrictor. It is also claimed that Stovaine possesses about one-half to one-third the toxic properties and to show decided antiseptic and germicidal properties. These advantages combined with its lower cost, its extreme solubility in water and the fact that a solution does not suffer decomposition at a temperature of 115° C. for twenty minutes are, indeed, enough to favor a trial.

I will not more than refer to the animal experiments and clinical reports which have been made by Billon, Launoy, Pouchet, Huchard, Reclus, Chaput and others, who seem to have had most favorable results, but wish to record decidedly unfavorable results from its use in the following cases:—

CASE 1. On October 26, 1904, I used stovaine for the first time. The patient, J. S., married, thirty-one years of age, was suffering from fistula in ano and ischio-rectal abscess. The patient refused to take a general anæsthetic, so here seemed a good opportunity for testing the many advantages claimed for stovaine by its agents. I accordingly prepared a 2 per cent. solution, first injecting into the patient one-half of a grain of morphine. Of this 2 per cent. solution of stovaine, about twelve cubic centimeters were injected around the margin of the anus, and from the anus to the site of the external opening of the fistula. The sphincter was then stretched, causing the patient great pain as apparently no anæsthetic effects whatever had resulted from the use of stovaine. I inserted a grooved director into the fistulous tract and incised the tissue, the patient all the while objecting vigorously and complaining bitterly of the pain. When the operation was finished, the patient said he had felt everything that had been done. This wound was most obstinate in healing.

CASE 2. November 11, 1904, B. B., single, aged twenty-six. Has all the appearances of general good health. Suffering only from

a chronic urethritis, with a contracted meatus. Meatotomy was advised and performed under stovaine, 10 minims of a 2 per cent. solution being used. No pain was felt during the operation, anæsthesia in this case being perfect. After the operation the patient became very pale, and as syncope was imminent, I had to place him on the floor, in the prone position. November 23d, a gangrenous area developed at the tip of the glans penis, corresponding to the site of the injection of the stovaine, extending downward toward the frenum, about one-third of an inch, and about one-fourth of an inch on each side of the incision. The patient was angry and disappointed at the continuation of this "soreness," as he described it, persisting so long and he left with his gangrenous spot still remaining.

CASE 3. November 11th, 1904, H. W., single, aged twenty-one years, of excellent family and previous history, applied to me and requested to be circumcised. This operation was performed with the use of stovaine as an anæsthetic in the strength of 2 per cent., about 8. c.c. being used. This patient complained of pain at the latter half of the stitching process. Four days after the operation the patient reported, as requested, and I was surprised to see a marked œdema of the penis. Nothing outside of this œdema was to be seen at the time. The patient reported the second time on the 27th of November, when he presented an extensive gangrenous process, extending from the distal end of the skin of the penis, backward, for about one inch, only a slight area escaping on the dorsum of the penis. The odor from this gangrenous process was very offensive and typical. The subcutaneous tissue was also involved in the process. I excised the dead tissue, which extended down to the corpus spongiosum, but fortunately for the patient's, as well as my own sake, not through into the urethra. This patient was treated with antiseptic dusting powders and went on to slow recovery, resolution being completed December 30th, 1904.

CASE 4. J. O'F., single, thirty years of age, applied to me to be circumcised, November 16th, 1904. This operation was performed with stovaine, 2 per cent. in strength, 8. c.c. being used. The patient complained toward the latter half of the stitching process of pain, feeling every stitch taken in the skin. After the operation was completed, the patient, a big, strong, healthy, fine-looking fellow, complained of dizziness and nausea, and would have fallen, had I not placed him in time on the floor in the prone position, syncope being imminent. On November 21st, the patient reported to me, and I noticed a marked œdema and an ulcerative dermatitis

corresponding to the line of suture. This was dressed with aristol powder. November 25th, I noticed gangrene of the skin and subcutaneous tissue following the line of the stovaine injection, and extending backward from the distal end of the skin of the penis on its under surface for about three-fourths of an inch, and one-fourth inch on the dorsal aspect of the penis. The gangrenous area was excised and a wet dressing applied. Later on, aristol was used as a dry dressing. Resolution was completed about December 29th.

In none of these cases of gangrene was any pain complained of after the onset of the gangrenous condition. These two cases of gangrene following circumcision were so exactly alike in appearance that a photograph of one would easily pass for a photograph of the other.

CASE 5. March 28th, 1905, C. M., aged thirteen years, applied to the New York Polyclinic Medical School and Hospital for circumcision, which operation I performed, a boiled solution of stovaine, 2 per cent. in strength, being used as a local anæsthetic. The House Surgeon carefully cleansed the parts, and observed in a careful manner antiseptic precautions. Sterilized instruments were used, and silver skin clips substituted for sutures. The next day œdema of the skin of the penis was noted. Within a week or ten days, two gangrenous areas, one the size of a ten-cent piece, appeared on the under surface of the penis, and the other the size of a split-pea, close to it. At the present writing, April 30th, the gangrenous areas are still present, also the marked œdema of the skin of the penis extending from the root forward, remains; the edges of the mucous membrane and the skin are barely united.

My conclusions in regard to this drug stovaine are (1) that it has not the lasting anæsthetic properties possessed by cocaine; (2) that it does produce intoxication, when injected subcutaneously, as noted in the cases cited, just as is sometimes produced after the use of cocaine; (3) that it is not by any means as safe as cocaine, but is, on the contrary, a most dangerous and unreliable drug, producing chronic œdema and gangrene of the parts into which it is injected, when used in the strength of a 2 per cent. solution; (4) that it interferes with the healing process, extending the time many weeks longer than what is considered an ordinary period.

One of these cases was exhibited before the Clinical Society of the New York Polyclinic Medical School and Hospital, and before the Celtic Medical Society, at the New York Academy of Medicine. On the evening the case was exhibited before the latter Society, I was visited by a physician, a representative of the agents of stovaine,

and I described to him the effect produced by the stovaine and invited him to the Academy of Medicine to see and discuss the case, but he failed to put in an appearance.

EDITORIAL.

EXPERIMENTAL SYPHILIS AND THE SPIRILLUM OF SYPHILIS.

IN 1903, Metchnikoff and Roux inoculated a chimpanzee with syphilitic virus and produced a typical chancre at the point of inoculation followed by the development of secondary lesions. This anthropoid ape, affected with syphilis, was shown before the French Academy of Medicine, and no one contested the diagnosis. Lassar, of Berlin, and Neisser, of Breslau, repeated the experiment successfully, and since then Metchnikoff and Roux have inoculated fourteen chimpanzees, all of which have contracted syphilis.

The method of inoculation is simple: the virus from a chancre, or from a secondary lesion, is taken and introduced by scarification, either upon the genital mucous membrane or upon the superciliary ridge of an ape. Inoculation into the subcutaneous connective tissue or into the vascular circulation has always been unsuccessful. The period of incubation has been an average of twenty-two to thirty-five days, exceptionally from fifteen to forty-nine days.

After this period of incubation appear small, slightly elevated, faintly red lesions, which in a day or two present small scales and become absolutely identical with human chancres. This chancre is accompanied by adenopathy, heals in a few weeks, and leaves either a pigmented or non-pigmented scar. At the end of a month a papular eruption appears, similar to that in man. The roseolar rash in apes is not diagnostic, as many other causes produce similar rashes.

If other apes are inoculated from these papular lesions syphilis develops. One chimpanzee developed a malignant syphilis and died in a short time. Aside from several cases of paraplegia, nothing resembling tertiarism has so far developed. Neisser has inoculated the orang-outang, but secondaries were not typical. The gibbon and lower orders of monkeys have developed the chancre, but the adenopathy was less marked, and no secondaries followed.

This resistance of the lower order of monkeys to the disease has suggested the experiment of inoculating a chimpanzee with virus taken from the inferior monkeys. In some cases this gave an im-

munity to human syphilis, in others the virus from a macacus produced a grave syphilis in the chimpanzee.

As to the nature of the syphilitic virus. Klingmüller and Baermann inoculated themselves with a virus which had been triturated in a physiological salt solution and then filtered through a Berkefeld filter with a negative result. As this experiment was liable to error, from the length of time elapsing between taking the virus and making the inoculation, Metchnikoff and Roux repeated the experiment, using the aqueous humor of a sheep's eye for diluting the virus and inoculating a chimpanzee. The filtered virus failed to produce a chancre, while the unfiltered virus produced syphilis in the control chimpanzee; demonstrating that the microorganism of syphilis was larger than that of pleuro-pneumonia of cattle, which passes through the Berkefeld filter. Further experiments of the two last mentioned investigators show that the virus of syphilis loses its efficacy if heated to 51° C., and is not attenuated by mixing it with glycerine.

In a recent communication before the French Academy of Medicine, séance of May 16, 1905, Metchnikoff and Roux referred to the interesting work done by Schaudinn, of Berlin, in demonstrating the presence in syphilitic lesions of an exceedingly delicate spirillum, very difficult to stain and only by special coloring agents, such as azure blue and eosine of Giemsa. This spirillum is not to be confused with the ordinary spirochætæ to be found on the genital mucous membranes, or on the tonsils. Schaudinn, with his collaborators, Hoffmann, Gonder, and Neufeld, have studied twenty-six cases of primary and secondary lesions and have found the spirochætæ pallida in every case, although in some cases few in number. This microbe has been found in mucous patches, deep down in initial lesions and in the juices of inguinal glands in the primary and secondary stages, and has not been found in persons suffering from other skin diseases.

Employing the method of Giemsa prolonged for sixteen to twenty hours, and also the method of Marino, which consists in the mixture of a methyl alcohol solution of azure blue with an aqueous solution of eosine, Metchnikoff and Roux have succeeded in finding the spirochætæ pallida in eight cases of syphilis (four apes and four men), and announce that owing to the present impossibility of obtaining cultures of spirochætæ a great many facts must be accumulated before pronouncing definitely, but that, altogether, the facts known, plead strongly in favor of the thesis that syphilis is a chronic "*spirillose*" produced by the spirochætæ pallida.

SOCIETY TRANSACTIONS.

NEW YORK DERMATOLOGICAL SOCIETY.

334th Regular Meeting, May 23, 1905.

Dr. GEORGE H. FOX, *President*.

Case of Flat Multiple Senile Warts (Supposed Porokeratosis) Cured by the X-Ray. Presented by Dr. ALLEN.

Mrs. B., referred to me by Dr. Dunning, of Newburgh, on May 13 for an affection confined to the trunk, which began in September last, as brown blotches between the shoulders, coming on shortly after a belladonna plaster had been applied. In December, the patient noticed rough brown spots on the abdomen which increased in size rapidly and new ones appeared, until the whole abdomen was covered. Despite various external and internal remedies, including salicylic acid in collodion, iodine, sulphur, etc., the affection persisted, until some spots were the size of the little finger nail. Beneath the breasts were tenacious crusts. The lesions were very firm, raised, with rough surface, some oblong, but mostly irregularly rounded, showing slight tendency to confluence, no subjective symptoms.

Some of the lesions were curetted, and the entire trunk was subjected to the X-ray influence. In six days there was great improvement. Many lesions had disappeared, others could be curetted without bleeding and came off readily. After the second application of the ray, the results were still more striking, and the few which remain are flatter, less brown, less rough. The interest in the case lies in the fact that a lesion was excised before she was sent to me and the report was made that histologically it was a case of Porokeratosis.

Dr. LUSTGARTEN regarded the case as one of multiple seborrheic warts or senile warts.

Dr. ALLEN wished to add that the case was interesting because the histological examination had favored the diagnosis of a porokeratosis, but that he had presented the case as one of multiple flat senile warts.

A Case of Necrotic Granuloma. Presented by Dr. WHITEHOUSE.

The patient, a male child, nineteen months old, developed the eruption seven weeks ago, beginning on the back and extending to arms and legs and head. The entire middle and lower part of the back is thickly covered with small papular, pustular, scabbed lesions and deep variola-like scars. The lesions are primarily small hard papules which soon

soften in the center, forming a dark scab which speedily sinks in leaving sharply punched out ulcerations, which, when healed, result in deep scars like those of smallpox. Over the sacrum and upper gluteal region the scars are very numerous and thickly set. Lesions of precisely the same character are scattered sparingly over the arms and legs, and the same scars are present on the forehead and temple region. There is an impetiginous eczema of the scalp and a well marked marginal blepharitis. The child is well nourished and otherwise healthy. There is no tubercular history. The mother has other children living and well.

Dr. ALLEN granted that the case was very similar to an *acne varioliformis*.

Dr. LUSTGARTEN had seen very few such cases in the United States, although he had seen many such cases in Austria. It was an infective process with sharply defined areas of gangrene, an *ecthyma infantilis*. In this case the lesions were rather small and uniform in size; it was usual to have large gangrenous patches in flexor surfaces, especially in the genito-crural regions. Nevertheless, he thought the diagnosis of *ecthyma* was the only one to be considered in this case.

Dr. JACKSON looked upon the case as a local infection with pus organisms. He thought that the progress had been too rapid for a *granuloma necroticum*, which was always a slow process.

Dr. ROBINSON made the diagnosis of *ecthyma*. The lesions were usually larger than those present in this case, but the scarring corresponded to what one should expect in a process that extended into the corium.

Dr. SHERWELL said that it resembled an *acne necrogenica*.

Dr. KLOTZ said that the process was very much the same as in *acne varioliformis* or *necrotica*. He could not see any resemblance to what generally was described as *ecthyma*. This was a more acute, usually febrile affection, frequently seen in children, but more likely to be observed in the children's departments than in the skin clinics. The *ecthyma* lesions, almost exclusively situated on the extremities, principally on the lower ones, were much larger and decidedly hyperæmic, bright red in the circumference, more superficially ulcerated and covered with crusts. Unless irritated by scratching or other injury they would not leave any scars, but a pigmentation lasting sometimes for weeks; under no circumstances would such pitted scars be found as in the present case.

Dr. ELLIOT failed to see how the case could be considered under the head of a *granuloma*. In a *granuloma* the lesions were usually deeper. The case resembled somewhat the cases described by T. Calcott Fox and Radcliff-Crocker as *varicella gangrenosum* or of the *ecthyma térébrant* of the French. There was a very good illustration of this disease pictured in the St. Louis Hospital atlas. In that case the lesions were situated on the abdomen. All cases of *granuloma* were more deeply situated. In *acne varioliformis* and in the *tuberculides* the process began deep down in the true skin and the surface was affected later. This seemed to be a case commencing on the surface and extending deeper.

Dr. DADE considered the disease an *ecthymatous* process and thought the impetiginous condition of the head and eyes went to support this opinion.

Dr. MEWBORN agreed with the opinion of Dr. Dade as to an *ecthymatous* process.

Dr. LUSTGARTEN said that *ecthyma* was essentially an ulcerative process and destroyed the epidermis as well as extended into the corium, consequently must produce scarring.

Dr. ELLIOT said that the case under discussion showed evident signs of its being an infectious process from the beginning.

Dr. ROBINSON objected to the statement that ecthyma did not usually leave scars. Scarring was one of the diagnostic features of the disease. The corium was invaded, and the colligation which took place was necessarily followed by scarring.

Dr. ALLEN said that in his practice at the Good Samaritan he had observed many cases of ecthyma. In fact the ecthymatous process was very frequent in impetiginous children. Usually the lesions were larger than the case shown, but the scars were not so deep in comparison with their diameter. The eruption usually extended over the buttocks and to the knees, and left distinctly perceptible scars. He would not call this ecthyma.

Dr. WHITEHOUSE, in closing, said that he did not think of ecthyma on account of the small size of the lesions, and the depth to which they extended. He thought the presence of acne varioliformis lesions on the face, forehead, and temple, was confirmatory. If the lesions on the face were in an adult, he thought there would be no doubt as to the diagnosis.

Lichen Scrofulosorum, A Case of. Presented by Dr. Fox.

Dr. Fox brought forward a lady, the wife of a physician, who was suffering from a grouped papular eruption on the body, principally confined to the central portion of the chest and back, although grouped patches were present on the sides of the chest and upper arms. At first examination he had considered the circinate grouping as a tubercular syphilide, but the flattened tops of the lesions, as in lichen planus, the fading of the patches in the center, the persistence of the eruption for four or five years, the slight amount of itching, the slightly yellowish tint, made him consider it a lichen scrofulosorum. An article by Brocq described cases which almost perfectly corresponded to this case.

Dr. KLOTZ said that he could not make a diagnosis; some of the lesions resembled lichen planus, some even had the waxy appearance of molluscum contagiosum, without the central aperture; they seemed to be quite superficially located.

Dr. WHITEHOUSE had never seen a case of lichen scrofulosorum in this country.

Dr. SHERWELL could not positively exclude a pityriasis versicolor, and thought a microscopical examination of the scales should be made. He had seen a few cases of lichen scrofulosorum in this country, and those presented a maculopapular eruption livid in color and beginning, at least in a discrete manner, on the sides of the abdomen about on a line with the crest of the ilium. There was usually a scrofulous adenopathy, poor dentition and poor health accompanying. He would not consider case shown as one of those described by Hebra.

Dr. ROBINSON said that as to cases of lichen scrofulosorum which he had observed, the case published by Gottheil from his clinic was a marked case. There was in that case a grouping of isolated papules, slightly red, having at the apex a little scale. Another case was in a child having an eruption from the neck to the buttocks; in that case a marked tubercular peritonitis was found on autopsy. The case under discussion was a lichenoid eruption, but he did not think it was a lichen scrofulosorum. As to a tuberculide he could not state without a microscopical examination.

Dr. LUSTGARTEN said that from a clinical view it was very difficult to make a diagnosis. He had not seen a typical case of lichen scrofulosorum in this country. The disease was usually found in children or adolescents with enlarged glands or other signs of a tuberculous nature. The lesions were of a distinct, uniform, miliary type, with a crust at the apex or a pustule. This case began late in life, was confluent and more of a papular character. It seemed to him to be a lupus of a mild attenuated form—a lupus miliaris.

Dr. ALLEN said that there was no doubt but that the eruption was lichenoid. Pityriasis versicolor he would throw out of consideration, although he would like to apply the iodine test to exclude by its aid mycotic conditions in general. He had seen two cases of lichen scrofulosorum in this country in younger subjects, but neither had shown the features of this case.

Dr. ELLIOT did not favor the diagnosis of lichen scrofulosorum as the cases of that disease which he had seen in Europe did not present the coalescent patches, which subsided at the center to spread at the periphery, as in this case. He would not make a diagnosis in the case presented without a more careful study and in a better light. The general configuration of the lesions suggested more the diagnosis of syphilis or mycosis fungoides. He was always skeptical as to the history of long duration in these cases. In his private practice he had recently observed a syphilis of the palms and soles in a man who stated that the lesions had been present since childhood.

Dr. FOX, in closing, said that the case had first impressed him as a tubercular syphilide, but the pale color, and the failure to show the slightest benefit from antisyphilitic treatment was against that diagnosis. The eruption had increased in size since the case had been under his observation. The lesions had flattened and decreased in the center of the patches. The isolated papules at the margins, some flat and shiny, and others forming waxy and glistening circles, were suggestive of lichen planus, but he had finally come to the conclusion that it was a case of lichen scrofulosorum. He recalled several cases of this disease in Hebra's clinic in boys where the lesions were oval or irregular patches, some presenting a superficial scale, which would not be observed in any patient bathing daily.

Case of Acne Indurata to Show the Results of X-Ray Treatment. (Previously Shown.) Presented by Dr. ALLEN.

This young man had been shown at one of the meetings last year with a severe and extensive acne, with much scarring and nodular, almost keloidal sequelæ. Under X-ray treatment these had become smooth, and, aside from a few isolated pustules, was almost well.

Case of Sarcomatosis Cutis. (Previously Shown.) Presented by Dr. SHERWELL.

This case had been presented before the Society several times, and at present some of the tumors had flattened and cleared up under the administration of arsenic to the physiological point. Striking improvement in appearance, subjective symptoms and freedom of movement in hands and feet.

Dr. FOX related the case of a man with sarcomatosis who came to his office recently, chiefly on account of a secondary eczema. A rubber bandage was used on the leg affected with slightly elevated sarcomatous tumors, and under the

influence of pressure alone there had been a decided flattening down of the patch.

Dr. LUSTGARTEN conceded a decided improvement in the case, although he had never seen a case cured by arsenic. The X-ray had given very great satisfaction in his hands in these cases.

A Case of Mycosis Fungoides in the Lichenoid Stage (Premycotic).

Presented by Dr. MEWBORN.

The patient, C. W., is a young man, aged twenty years, a native American. His father, a native of Ireland, died of consumption. His mother, a native of England, is in good health, as are also his two sisters and two brothers. No family history of skin affections.

At four years of age the patient had a severe attack of diphtheria, for which he was intubated, and states that since then, or for about sixteen years, he has suffered from repeated attacks of skin eruptions which appeared at first on the face and spread to the arms and body. The eruption exudes a serum at times without a decided history of vesicle formation, but accompanied always by intense itching. The eruption fades, becomes scaly, but has never entirely disappeared. He suffers from asthmatic attacks, but has noticed no correlation between the two. The present severe attack has lasted for three months.

Status præsens. Short in stature, but well filled out. Face almost devoid of hair, voice raucous and not showing a very bright intelligence. His skin affection shows a great variety of lesions. On the scalp there is a diffuse erythema, with at times a considerable desquamation, but no serious exudation. His face appears somewhat swollen and shows fissuring around the mouth and chin. There is some scaliness, but no crusting or exudation. The eyebrows are broken off and thinned out. Almost no beard is to be found. Mouth and mucous membranes are not affected. On the neck the eruption is somewhat lichenoid in character, being of a dark red color which shows shiny red papules on a thickened somewhat indurated skin. On the front of the chest the eruption is confluent with scattered scaly papules raised above the niveau. The confluent area on the chest, like a breastplate, fades off to an erythematous network on the sides of the chest to become a scarcely visible erythema on the back. On the upper arms, the rash is disseminated in small scaly patches, while from the elbows to the wrists, the skin is thickened, fissured and shows crusting from dried exudation (eczematous). This region, which shows marked signs of scratching, is markedly deficient in sensibility to pain (anæsthesia). The eruption on the forearms is equally distributed on the extensor and flexor surfaces. The dorsal surfaces of the hands are affected to the knuckles; palms unaffected. On the lower abdomen extending down the anterior and inner surfaces of both thighs, the eruption becomes much more lichenoid in character; shiny papules with flattened tops, even slightly umbilicated and of a dark red or violaceous

color. Lower down on the inner and anterior surfaces of the thighs, the rash is even more papillomatous, in places becoming slightly tumor-like, and, at the time of first examination, some days ago, was, in places, moist with exuded serum. The posterior surface of the thighs from the gluteal fold down to the ankles are similarly affected. On the outer surface of both hips, a distinct circinate arrangement of lesions can be observed. The feet are not involved, but on the other thighs and lower legs the eruption is rather eczematous. There is a general adenopathy, especially marked in the inguinal region. Liver is enlarged and felt three fingers' breadth below the free border of the ribs. Spleen was not made out.

The report of the blood examination, for which I am indebted to Dr. L. B. Goldhorn, is as follows:

Hæmoglobin, 90 per cent (v. Fleischl); Red corpuseles, 4,680,000; Leucocytes, 9,800.

Differential count. Polymorph. neutrophiles, 60.4 per cent; Lymphocytes (large and small), 16.3 per cent; Mononuclears and Transitionals of Ehrlich, 3.2 per cent; Eosinophiles, 19.5 per cent; Mast-cells, .6 per cent.

The absolute number per cubic millimeter, normal except for *marked eosinophilia*—1900 per cubic mm. as against 200 or less normally. Red blood shows no well defined changes in morphology. No nucleated reds. Moderated tendency to anisocytosis (variation in size), but not poikilocytosis. Blood platelets increased.

The histological and cultural report will be given later.

Dr. ALLEN considered the case an exaggerated one of chronic eczema. There was present marked thickening of the skin but not sufficient glandular enlargement for prurigo. It might be designated eczema ferox.

Dr. LUSTGARTEN thought there was a remarkable increase of eosinophiles in the case, as had been observed in the toxæmic condition of the urticaria group, viz.: urticaria, prurigo, dermatitis herpetiformis. In the presumably infectious conditions like mycosis fungoides no striking increase of eosinophiles has been observed. The case presented shows unusual features and he was not ready, without further study, to make a diagnosis, but would exclude mycosis fungoides.

Dr. JOHNSTON said that from a study of the sections shown there was not an earmark of eczema. The three things necessary to the diagnosis of eczema were lacking; there was no acanthosis, no œdema, nor parakeratosis. He made a probable histological diagnosis of mycosis fungoides. In the cell mass, sheathing the vessels of the superficial plexus, the elements were chiefly proliferated fibroblasts with few lymphocytes. The vessels were chronically congested.

Dr. SHERWELL inclined to a possible diagnosis of primary xeroderma and with a secondary prurigo.

Dr. WHITEHOUSE said that the chronic itching and scratching were sufficient to account for the glandular enlargement. He considered the case one of chronic infiltrated eczema.

Dr. WINFIELD thought it was a case of mycosis fungoides and that if Dr.

Mewborn would show the case again in six months or a year, the Society would find Dr. Mewborn's diagnosis correct.

Dr. ELLIOT agreed with the diagnosis of Dr. Mewborn.

Dr. Fox said that clinically the case was a chronic lichenoid eczema, possibly concealing a prurigo. The flexures of the joints were usually free even in severe cases of prurigo, but were affected in the case presented.

Dr. KLOTZ thought that the condition resembled that of prurigo more than any other disease. He considered the condition of the skin rather a pachydermic than a sclerodermic one. He called attention to the fact that the thickening of the skin in prurigo was considered to be secondary rather than indigenous to the prurigo itself.

A. D. MEWBORN, *Secretary*.

NEW YORK SOCIETY OF DERMATOLOGY AND GENITO-URINARY SURGERY.

April and May Meetings.

Dr. KINGSBURY in the Chair.

Case of Psoriasis, with Palmar Lesions. Presented by Dr. KINGSBURY.

The patient is thirty-four years of age; a barber by occupation. States that he had had scaly lesions on the body since three years of age, and since that time has never been entirely free of the eruption. At present the eruption is rather extensive and there are large typical patches over the elbows and knees. The lesions on the palms have been present for the past two months.

Case of Morphoea. Presented by Dr. KINGSBURY.

The patient is a shopgirl, sixteen years of age. Two years ago she first noticed a small circumscribed hard area just above the right knee. This gradually increased in size and at present there are similar, though smaller, areas on the thigh and leg. All the lesions are of ivory color, and there are dilated capillaries around the oldest and largest one.

Two Cases of Xanthoma Multiplex. Presented by Dr. W. B. BROWN.

CASE 1. Mr. W. C. Van D., age thirty. The disease began two and a half years ago with the appearance of pinhead-sized yellow lesions on the right elbow. Six months later the lesions appeared on the left elbow and palms. One year ago similar lesions appeared on the trunk and knees. Since then the lesions have increased rapidly in number and at the present time lesions varying in size from a pinhead to a pea, and in color from a pale yellow to a chamois, are present on the sides and front of the trunk, large grouped lesions on the buttocks and lesions grouped in tumor-like masses on the elbows. There is some redness of the skin over the grouped lesions, particularly at the points

subject to contact and friction. There are no lesions upon the knees or upon the mucous membranes. The patient considers himself in good general health. He had an attack of tonsilitis three or four months before the appearance of this disease. Following this attack he had severe pains in the legs, which were probably rheumatic. He has had no rheumatic symptoms since then. He has had occipital headaches for a year, occurring about every two weeks, generally in the afternoon and lasting for several hours. He does not complain of any digestive disturbances or constipation. The X-ray has been used every third day on the elbows and palms with marked improvement. A dermatitis of both elbows was set up by the X-ray. An interesting feature in the treatment is that the deep-seated lesions of the palms were very much softened during the application of the X-ray to the elbows alone. No jaundice has been found. Examination of the urine showed no sugar, indican or albumen. There are a great number of deep-seated lesions on the palms, the lines of which show a marked yellow color.

CASE 2. Mr. P. W. Van D., age forty-four, brother of Case 1. The disease appeared eight years ago as pinhead-sized lesions on the left elbow. The lesions remained confined to the elbow for one year when the right elbow became affected and the buttocks about the same time. Only in the last three or four years have the lesions shown any tendency to increase in size. The lesions on the abdomen first appeared three or four months ago. As in Case 1, the lesions appeared as pinhead-sized to larger grouped ones on the abdomen, elbows, buttocks and knees. The grouped lesions form large tumors on the elbows, and they present the same appearance as in the brother. The palms in this case are not affected. The general health of the patient is good. There is no history of indigestion, constipation, rheumatism, or headaches. In July and October, 1903, he had two attacks which were diagnosed as biliary colic lasting four days and one day respectively. He has had no previous attacks of this kind. No sugar nor albumen were found in the urine. The X-ray has not been used for a sufficiently long period in this case to permit me to form any opinion of its value. Judging from the case of the brother, however, I feel I am safe in stating that the X-ray offers an effective method of the treatment of this disease.

Case of Xanthoma Multiplex. Presented by Dr. H. H. WHITEHOUSE.

The patient is a woman thirty-four years of age. Her general health is good. She has been married fifteen years, but has had no children or miscarriages. Her parents, four brothers and two sisters, are unaffected. The patient is moderately alcoholic; the liver is slightly enlarged; she has never had jaundice. The urine is mildly acid, specific gravity 1010, no albumen or sugar, urea .65 per cent.

The eruption appeared eight to nine years ago as yellow discolor

ations on the lines of the palms, which gradually increased to the interdigital clefts, sides of the fingers and lines of the knuckles and wrists. Two years ago, tubercular masses appeared on the elbows. There are also a few patches on the dorsal surfaces of the toes, interdigital clefts and flexure of the first joint of the second toe on each foot. The eyelids are free.

The lesions are all of a bright yellow color, except those on the elbows, which are tuberoso and of a dull red color, showing in places the same yellow deposits. The patches in the interdigital clefts of the fingers and toes and the dorsal and flexor surfaces of the toes are of the xanthoma planum type, similar to the lesions commonly seen in xanthoma palpebrarum. There are no subjective symptoms.

A Case of Acne Varioliformis. Presented by Dr. W. B. BROWN.

The disease first made its appearance upon the forehead about one year ago and has gradually involved the parts affected. The lesions began as more or less deep-seated papules, slightly reddened on the surface. These lesions later either became pustular or without visible pus formation; a central crust appears on the papules. At present there are deep-seated papules, pustules, papules with central crusts, stains, and small superficial cicatrices are scattered over the scalp, forehead, sides of the neck and nose. The case is interesting on account of the extent of the eruption.

Case of Pustular Scrofuloderm. Presented by Dr. H. H. WHITEHOUSE.

The patient is a little girl five years old. In the winter of 1902 and 1903 she suffered from what the mother called "run-a-round," involving several fingers on both hands. These were sore several months. In April, 1903, following several attempts to dislodge a bead accidentally lodged in the left nostril, the nose became very sore and there was considerable discharge. The glands on the right side of the neck became enlarged at this time. In June, sores broke out on the scalp, forehead, neck and body, and the left eye became inflamed. These subsequently got well, leaving scars, some of which now can be seen, especially on the forehead and one ankle. Upon the healing of the lesions, the glands went down, the eye recovered and the patient gained flesh.

In March she had the measles, and the old eruptions recurred in precisely the same form as before, including the inflammation of the left eye and the involvement of the fingers. In addition, however, the mouth became extremely sore and foul. This condition, with the exception of the lesions in the mouth, has remained to the present time. She has lost eight pounds since March.

Four days ago, a papulo-pustular condition developed on the chest and back which has become confluent, resembling an eczema. There

are four other children in the family, aged, respectively, ten, eleven, twelve and thirteen years, all healthy, and there have been no deaths. The parents are both well and no tubercular history can be elicited.

The eruption begins as a small red papule which quickly becomes pustular and enlarges rapidly, the pustular condition drying into a scab which ulcerates beneath, leaving rather deep, sharply-cut ulcers. These are scattered over the forehead, neck, scalp, and here and there over the body and limbs. There are several sharply-cut ulcers on the right side of the neck, the average being one-quarter inch in diameter. They are very deep, with a smooth, red base. Similar ones are scattered over the left side of the scalp. The left eye is the seat of a keratitis and conjunctivitis, and there is a bulbous red chronic inflammation involving the end of one thumb. The mucous membranes, with the exception of a few excoriations on the lower lip, are normal. The cervical glands are enlarged. The patient is pale and somewhat emaciated. The abdomen is hard and protruding, the whole appearance, in fact, being that of a tubercular subject.

A Case of Leprosy. Presented by Dr. S. MARTINS.

Miss T., twenty-two years old. Born in Kurland, Russia. She was perfectly well up to about three years ago. Her father, mother, three sisters and three brothers are all alive and, with the exception of the mother, who has been treated for leprosy during the past seven years, are all in good health. While the mother has been in this country for some time, this daughter lived in Russia until three years ago, when she came to America.

About two years ago she commenced to suffer greatly from hæmorrhage from the nose and for which she consulted a specialist who treated her locally for the nose and throat without benefit.

About a year and a half ago she noticed erythematous spots on the extremities, particularly on the upper ones, combined with a tingling sensation around the spots, and with this a severe headache. About nine months ago tubercles appeared, varying from the size of a pinhead to that of a five-cent piece, scattered all over her body, especially on the face and extremities.

Six weeks ago she came under my observation and the diagnosis of leprosy was made. Thereupon I took her to Dr. Goldenberg's clinic in Mount Sinai Dispensary and he substantiated my diagnosis. Her blood was examined by Dr. Goldmark and found negative, but after taking specimens of the serum from one of the nodules and the serum of a broken down tubercle, abundant lepra bacilli (with the usual stain) were found. Here nerves were then examined and it was observed that there was marked anæsthesia around the area of the tubercle only. At a sub-

sequent examination of the secretions of the nose, bacilli were found in small numbers.

When Miss T. came to this country she absolutely did not have the slightest symptoms indicating the presence of the disease; however, as it is the opinion of eminent dermatologists that this climate is not favorable for the communication of leprosy, a question of interest is: Where did she acquire the disease?—whether in this country after she joined her mother (who is a leper), or in Russia. The mother has been living in this city for many years with her children and none of them has been afflicted with the disease except this daughter from whom she was long separated.

Case of Dermatitis Exfoliativa. Presented by Dr. WILLIAMS.

The patient is a seamstress, fifty-two years of age. There is no family or personal history of tuberculosis. The patient had a severe attack of diphtheria in infancy, and has had frequent attacks of sore throat ever since. She is nervous and does not sleep well. She has never menstruated. She has had pustules on the fingers, apparently from infection by needle pricks.

She had no disturbance of the skin until six or eight months ago; since then she has had at irregular intervals attacks of swelling of the face, coming on suddenly, lasting a few hours or one or two days, and then disappearing. There were no subjective symptoms of any sort with these attacks, which occurred on the face, hands and feet.

About ten weeks ago the present condition first appeared, ushered in by marked chilly feelings. The face became very red and swollen and covered with small papules, which itched intensely. There were no vesicles, and there have been none since, and the patient is very emphatic that there has been no exudation and no bleeding save after extreme scratching.

The eruption began to form scales soon after its appearance, and then spread gradually downward, involving the whole body, including the palms and soles. The scaling has been a marked feature, and on the palms and soles the skin came off in large thick flakes.

The general health has continued unchanged, except for chilly feelings and difficulty in keeping warm, the hands and feet being almost always cold. Sweating, which was very pronounced before the eruption began has been absent since.

The skin of the entire body is now red, thickened, and covered with rather greasy, dirty gray scales, which are easily removed, leaving a smooth shining surface, but no exudation. There are now no papules or vesicles. The patient scratches almost constantly, and her skin shows a few crusted scratch marks.

The case is presented as one of primary dermatitis exfoliativa, and for diagnosis between this disease, pityriasis rubra, and chronic eczema.

Case for Diagnosis. Presented by Dr. WILLIAMS.

The patient is a button-hole maker by occupation, thirty years of age. He gives a history of two attacks of swelling of the face, with much burning sensation, accompanied by fever and prostration, and lasting about a week. The attacks occurred five and three years ago respectively. There has been no other skin disease except the present. He has not recently been in the country or in the park, and there have been no vines or plants in or about his home. On May 7th, he noticed a small papule, turning soon to a vesicle on the dorsum of the right hand near the wrist. The eruption has spread gradually ever since. There are now many tense vesicles scattered irregularly over the backs of both hands and the sides of the fingers, occurring singly or in groups or lines. Each wrist is surrounded by a band of vesicles about two inches wide, and the skin here shows considerable inflammatory œdema. He has kept his wrists bound up with some application of unknown nature, but elsewhere the lesions have not been influenced by treatment. There are a few beginning lesions on the neck and face. The whole appearance of the case is that of ivy-poisoning, but in the absence of any known external cause, the possibility of a toxic eruption of internal origin must be considered.

THE PHILADELPHIA DERMATOLOGICAL SOCIETY.

The regular monthly meeting of the Philadelphia Dermatological Society was held at the Polyclinic Hospital, Eighteenth and Lombard streets, Philadelphia, May 23, 1905, at 8:30 P. M.

Dr. M. B. HARTZELL, presiding.

Papulo-pustular Tuberculide. Presented by Dr. HARTZELL.

Dr. Hartzell showed two cases of unusual interest; the first he considered to be an example of the *papulo-pustular tuberculide*. The patient was an unmarried male adult and gave no history of tuberculosis in any member of his family. His entire condition had lasted altogether about six years, with exacerbations and remissions. It began as enlarged glands in the neck which suppurated and discharged, healing with disfiguring scars. Some of these had received surgical treatment. At the present time, his arms, shoulders, neck, and trunk were pretty much covered with these scars. The eruption for which he was brought before the society had lasted about three months, but he had had it before on

more than one occasion. It consisted of small papules and pustules situated, for the most part, on the extensor surfaces of the elbows and knees, but not limited to these regions. The chest and back were considerably disfigured with pin-head to pea-sized scars marking the sites of former lesions. The patient complained of great weakness, which prevented him from working, but there were no objective signs of any other disease.

The second case was presented for diagnosis. The patient was a colored boy, fifteen years of age, who gave a history of an eruption on his trunk and arms five months ago, which had undergone spontaneous involution, leaving behind numerous pea-sized scars. He had not been attended by any physician. It was presumed that this eruption was syphilitic in character. Following this eruption there appeared a swelling of the left ankle and a reddeued area over the tendo Achillis. At the present, this area presented the appearance of exuberant granulation tissue, the size of the patch being that of a silver dollar. Apart from the question of the condition being granulation tissue, there was a reasonable doubt expressed as whether or not this was but a part of the syphilitic disease. The question remained undecided. It is only fair to mention there was no history of tuberculosis.

An Unusual Case of Lichen Planus. Presented by Dr. F. C. KNOWLES
for Dr. C. N. DAVIS.

Dr. F. C. Knowles presented for Dr. C. N. Davis, *an unusual case of lichen planus*, occurring in a white woman, twenty-four years of age. The affection had lasted five months and made its appearance, first, eleven days after the death of her baby. The wrists and ankles were chiefly involved. Lesions were also observed on the buccal mucous membrane. The papules possessed the typical violaceous color, but showed unusually deep umbilication. On the trunk and thighs the lesions had fused into patches. Some of the lesions were marked by verrucous formation. The possibility of confusing acute cases of this type of disease with variola was discussed.

Acne Necrotica. Presented by Dr. J. F. WALLIS.

Dr. J. F. Wallis brought before the society three children in one family affected with *acne necrotica*. An older girl had been exhibited at a previous meeting, but the disease in her case is now entirely well. One of the children presented marked scarring on the face. Dr. Wallis called attention to the intense itching of the lesions and the tendency of new lesions to form on the scratch marks showing the relation of traumatism to the disease.

Urticaria Papulosa. Presented by Dr. WALLIS.

Dr. Wallis also showed a case of *urticaria papulosa* in a boy ten years old, and thought he saw some resemblance between these two affections, at least in certain stages. This view, however, was not shared by the other members present.

Eczema Rubrum Followed by Excessive Pigmentation. Presented by Dr. HENRY W. STELWAGON.

Dr. Henry W. Stelwagon exhibited a case of *eczema rubrum followed by excessive pigmentation*. Both legs and the wrists and hands had been affected, and the resultant pigmentation was extremely marked. The occurrence on the hands and wrists was especially noted.

Dr. Stelwagon also showed a case of *tinea sycosis* of four weeks' duration and remarked that, the nodular and kerion formation being so decided, the possibility of actinomyces was entertained at first, but that further observation had demonstrated the true nature of the condition. The side of the mouth and the upper lip were involved.

Morphoea. Presented by Dr. PFAHLER.

Dr. Pfahler called the attention of the society to some *photographs* of a case of *morphoea*, previously exhibited as a case apparently cured by the X-ray, which now showed evidences of beginning epithelioma. Interest was aroused in the discussion of this case by the fact that epitheliomatous changes had been noted once before in this same case. The patient was thirty-eight years of age. A second case presented was that of *pyogenic inflammation of the nails*, in which the X-ray had restored the condition of the finger tips and nails to almost normal. A third case shown was that of *epithelioma of the lip*, in which ankylosis of the jaw had followed surgical interference. The X-ray had apparently destroyed the remaining foci and had undoubtedly effected considerable mobility of the jaw.

Impetigo Contagiosa. Presented by Dr. E. J. STOUT.

Dr. E. J. Stout exhibited a case of *impetigo contagiosa* occurring in a boy, twelve years of age, whose older brother had contracted the disease at a barber shop. The patient's face (chin, cheeks, alæ of the nose) was affected by an annular type of the disease. Numerous lesions, varying in size from a five-cent-piece to a quarter of a dollar, showed the well-defined, ring-like configuration exhibited in *impetigo circinata*.

Dr. Stout showed a case of *vittigo*. This patient, a light-colored negro woman, thirty-five years of age, in whom the affection had existed for sixteen years, was presented on account of the peculiar girdle-shaped arrangement of the lesions, resembling the distribution of herpes zoster bilateralis, beginning at the umbilicus and encircling the waist. The

area involved presented an almost unbroken white patch, showing the characteristic increased marginal pigmentation.

Lupus Erythematosus. Presented by Dr. JAY F. SCHAMBERG.

Dr. Jay F. Schamberg exhibited a woman, aged thirty years, with an unusually inflammatory disseminated *lupus erythematosus*, involving the face, scalp, and arms, of three months' duration. The patches upon the arms are quite circinate and, taken by themselves, would doubtless not be regarded as an erythematosus lupus.

Case for diagnosis. A woman, aged twenty-eight, who had been previously shown at the society with erythematosus patches upon the thighs and arms, with a tendency to annular configuration. This had gradually disappeared under treatment after numerous relapses, and had left behind *leukodermic patches*, surrounded by hyperpigmentation. At the present time the disease looks like an ordinary vitiligo, but the pigmentary changes are secondary to an inflammatory dermatosis which the exhibitor regarded as an aberrant *seborrheide*. Microscopic examination from the border of an erythematosus patch showed merely a perivascular cell infiltration.

Leprosy. Presented by Dr. B. F. ROYER.

Dr. B. F. Royer, of the Municipal Hospital, exhibited a Hawaiian who had been in the hospital for *leprosy* for over a year. The patient had been exhibited by Dr. Schamberg about a year ago, at which time the patient was sent into the hospital. At that time he had nodules on the face, trunk and arms, and pronounced anæsthesia along the ulnar distribution of the forearms. Under improved hygiene and mercury and the iodides, the nodules disappeared and sensibility has been restored in almost all the affected regions. Anæsthesia is still present along a linear area over the left ulnar region.

SAMUEL HORTON BROWN, M.D., Reporter.

REVIEW
of
DERMATOLOGY AND SYPHILIS

Under the Charge of JOHN T. BOWEN, M.D.

LEPROSY.

By ISADORE DYER, M.D., New Orleans.

Leprosy in the Colony of the Cape of Good Hope. Dr. GREGORY reports from Robben Island and Emjanyana.

During twelve and a quarter years, or since January 1, 1892, 41 cases have been discharged as cases of arrested leprosy. The annual death rate has ranged from 12.9 to 22.9 per cent; average for twelve years, 16.9 per cent. Phthisis and general tuberculosis have caused over one-third of all deaths. Septicæmia and erysipelas have resulted in a mortality of .4 and .2 per cent respectively.

During twelve years 2282 lepers were discovered, 1414 of which were removed to an asylum.

There are 568 lepers at present confined in Robben Island; 189 of these have family history of the disease.

Dr. Gregory declares himself regarding the fish theory, saying there is not one iota of proof in support of it. (Quoted in *Leprosy* Vol. 5, fasc. 3, p. 162 *et fol.*)

Suriname has three leper asylums with the following distribution of inmates: Groot Chatillon, 146; Gerardus Majellastichting, 62; Bethesda, 16.

The existing restrictions regarding leprosy provide for the incarceration of lepers found in public places. At the present time any policeman who brings in a leper is given a reward of twenty-five guilders (about ten dollars). These regulations were promulgated in 1855 and an effort is now being made to effect a new ordinance. This would appear to be quite comprehensive:

ORDINANCE.

The Governor shall have the right to inspect every Leper Home, whether supported by the Government or by any other person or persons.

The Medical Inspector and the Procureur-General are the two persons to whom the Governor gives authority for these inspections.

All doctors are obliged if, in their practice, a person whom they have reason

to suspect of being afflicted with leprosy comes to their notice, to immediately report the case to the Medical Inspector and to the Procureur-General.

Each Parish Registrar, should he suspect any person living in his parish, shall immediately report the same to the proper authorities and all schoolmasters, and schoolmistresses are under the same obligation.

Every householder is obliged to report any person living upon his premises whom he has reason to suspect.

If any person is so suspected, if living in a district, the District Commissary, and if in town, the Procureur-General, shall appoint a doctor to go to the place and examine the person, and the doctor so appointed will receive a fee from the Government for his services. The doctor will report to the official by whom he was directed to make the examination whether or not the person examined is leprous.

The Governor has the right at any time to order an inspection of any part or the whole of the town as he may deem proper.

Every policeman is obliged, if he find a leper in a public place, to take him to the Commissary of Police, who will appoint a doctor to examine him.

The Commissary of Police has the right also, should he suspect any person of being a leper, even though the person may not go into public places, to take the person from his house and have him examined. After the doctor reports that the person is leprous, the person shall be taken to the Leper Commission which will be composed of the Medical Inspector as president and five members chosen by the Governor each year. The Government shall pay each member of this Commission a certain amount for each time that they meet for the inspection of suspected lepers; the Commission reports after each examination to the Procureur-General, and if the person is proved to be leprous, he is at once sent to one of the homes provided for such cases.

In case that any leper of his own free will may wish to be isolated he would need write or send to the president of the Commission and make known his wish and the Commission will be assembled to make the necessary examination.

Every person found by the Commission to be leprous shall have the right to choose the home to which he will be sent.

The Governor has the right to have disinfected or destroyed any place where a leper has been living or any property that a leper may possess, but the owner of the property has the right to claim indemnity for the property so destroyed; but if any dispute should arise as to the amount of loss sustained the Governor shall have the right to fix the amount of loss.

If anyone in one of the Leper Homes should wish to be transferred to another home, he shall have the right to claim such transfer and any leper may obtain permission from the Government to leave the colony, should he so desire.

Otherwise, all lepers are obliged, as long as they are infected, to be detained in one of the leper homes.

If it is thought by the head of one of the Leper Homes that a leper has recovered, the case should be reported to the Commission who will examine the person, and if he has so recovered, he will be released.

Any child born at any one of the homes shall at once be reported to the Commission who will inspect the child and determine what course is to be pursued regarding its detention or release.

Every Government officer who may be sent to one of these homes still has the right to his pension.

REVIEW OF DERMATOLOGY AND SYPHILIS. 329

Any person taken into one of the Leper Homes must relinquish all intercourse with the business and social world, all authority as parent or guardian, all property and business rights, being from the time he enters the Home until the time of his release, to all intents and purposes dead.

The moment any married person becomes an inmate of any one of the Leper Homes, the other party to the marriage has the right to claim a divorce immediately.

PENALTIES.

Any person, as mentioned in the above ordinance, who knowingly neglects to report any suspected case of leprosy shall be punished by imprisonment, with or without hard labor, from one day to six months, or a fine of from one to one thousand guilders, or both.

Anyone causing any person to be taken to one of the Leper Homes without his first being declared leprosy by the Leper Commission shall be liable to the same punishment as above.

Anyone aiding an inmate of any of the Leper Homes to escape is liable to the same punishment, as above.

Anyone who may prevent the doctor appointed by the Commission from examining a suspected leper is liable to the same punishment, as above.

All Homes existing at the time of the enforcement of this ordinance shall have six months' time in which to obtain the necessary permission from the Government to continue. Bethesda and Gerardus-Majella Stichting are excepted.

This ordinance shall be known as the "Leper Ordinance" and will be enforced at a time to be fixed by the Governor. The moment it is enforced all previous Leper Ordinances shall become void.

Leprosy in Iceland in 1904. EHLERS. (*Lepra*, Vol. 5, fasc. 1, p. 1-3.)

Reports a total of 133 cases of leprosy: 82 males, 51 females; 73 tubercular, 60 anæsthetic. All of these are isolated in a leprosarium. Ehlers states that there is no leprosy in Greenland. This fact is interesting because the Esquimaux eat a great deal of fish; needless to add that their fish is often badly cured, even spoiled at times.

On Leprosy in the Spinal Cord and Peripheral Nerves. LIE. (*Norsk Magazin für Lægevidenskaben*, 1904, S. 571.)

Lie examined twenty cases of tuberculous and maculo-anæsthetic leprosy. He considers the skin the first involved and that later the bacilli find their way into the nerves. In the tuberculous form the bacilli are more widely distributed in the skin; in the maculo-anæsthetic form they are most numerous in the nerves. The bacilli occur only in the peripheral nerves and in the spinal ganglion cells, rarely in the spinal cord, never in the central part of the nerves. In the peripheral nerves a well marked neuritis is found which has often proceeded to calcification.

Atrophic changes may occur in the nerve fibres of the posterior columns of the cord. These are considered by the writer as trophic-neurotic and as related to the peripheral neuritis. In the spinal cord occur a few observable changes as degeneration of the ganglion cells and hyperplasia of the glia chiefly in the posterior columns. (Ref. *Centralb. für Pathologie.*)

INFECTIVE GRANULOMATA.

By H. E. ANTHONY, M.D., Chicago.

Lupus Pernio. KARL KREIBICH. (*Archiv f. Dermat. u. Syph.*, 1904, Vol. 71, p 3.)

In 1888, Besnier described lupus pernio as a special form of lupus erythematosus, Tenneson published the second case and Jarish the third and fourth cases. Both of these observers expressed the opinion that the disease was related to lupus vulgaris rather than to lupus erythematosus, because lupus nodules were to be seen on the surface and histologically the findings were those of lupus vulgaris.

The special clinical features of the disease are due to the intimate relationship of the diseased areas to the blood vessels, causing vascular dilatation and passive congestion.

Kreibich's is the fifth case on record, and clinically the disease showed more of a tumor formation than the previous cases. The disease may be superficial or deep. The most important point in the histological study of the case was that the diseased tissue presented a distinct outline which is never observed in lupus vulgaris. The disease extends along the blood vessels. In only one case have giant cells been found, and in none of them the bacillus tuberculosis, and until it is found it cannot be accepted as settled that the disease, which is a distinct clinical entity, is a form of tuberculosis.

Wolters (*Archiv* Vol. 69) has recently reported a case of lupus caused by tuberculous emboli in which the tubercular deposit had a distinct outline.

On the Employment of Antistaphylococcic and Antitubercular Vaccines.

WRIGHT and DOUGLAS. (*Brit. J. Dermat.*, 1904, p. 283.)

Dermatological cases were selected because the result of treatment could be seen. Normally a protective substance exists in the blood; in staphylococcic infection this substance is diminished in amount. The method which the authors employ is to stimulate the production of the protective substance and to attract it to the point of infection. This

is accomplished by the use of a vaccine. First the blood must be examined to determine the individual dose required.

The vaccine is a pure culture of staphylococci, the micro-organisms of which are destroyed by heat. The treatment of tuberculosis is with Koch's tuberculin which they heat to 60° C. to insure the death of all bacilli.

A Tuberculous Tumor of the Glans Penis. GROUVEN. (*Archiv f. Dermat. u. Syph.*, 1904, Vol. 70, p. 217.)

A half cherry-stone size tumor developed in the corona at the seat of a chancroid which the patient had had twelve years before. The patient was first put on syphilitic treatment as it was probable that the tumor was a gumma; as this produced no result, the tumor was excised on the theory of its being an epithelioma. The sections showed the typical structure of the tubercle; no bacilli were found.

On the Occurrence of Tuberculosis Verrucosa Cutis in Miners. SCHULZE. (*Archiv f. Dermat. u. Syph.*, 1904, Vol. 70, p. 329.)

This is the second paper from Fabry's clinic on this subject; the author presents a synopsis of one hundred and sixty-six cases which enable him to draw a clinical picture of the disease. He finds that the disease does not begin in childhood as lupus does, but only after the patient has begun to work in the coal mines. It does not begin as an apple-jelly lupus nodule, and never as inoculation lupus, but rather as a stable, small, brown-red, split-pea-sized spot, covered with a small white shiny scale, the redness disappearing on pressure. Even in these primary erythematous spots giant cells are present in the upper layers of the cutis and around the sweat glands as well as deeper. This primary stage may last a long time.

The disease is superficially located, usually confined to the hands. Coal miners are especially apt to have wounds on their hands and pigmentations from powder impregnations, which form points of entrance for bacilli when they wipe their mouths with the back of the hand.

DISEASES OF THE SEBACEOUS AND SWEAT GLANDS

By H. G. KLOTZ, M.D., New York.

Hidrocystoma, Relation of, to Granulosis Rubra Nasi. *Hidrocystoma, ueber die Beziehung des zur Granulosis Rubra Nasi.* F. PINKUS. (*Derm. Zeitsch.*, xi., 642, 1904.)

Several cysts of the sweat glands were observed on the nose of a patient fifty-nine years of age, who since boyhood had suffered from an

affection of the point of the nose, causing much redness. Pinkus, with Lebet, considers it as very probable that any passing or chronic inflammation localized around the ducts of the sweat glands, may obstruct or entirely abolish the duct, so that retention cysts are formed.

Granulosis Rubra Nasi (Jadassohn), A Contribution to the Histology of.
—*Granulosis Rubra Nasi Jadassohn, Ein Beitrag zur Histologie der.* ED. BAUMER. (*Derm. Zeitsch.* xi. 646, 1904.)

The principal feature found in granuloma rubra nasi was an accumulation of cells, mostly plasma cells, around the duct of the sweat glands; this points to these glands as the original seat of the pathological condition. The blood vessels and the lymph spaces of the cutis were much dilated, hair follicles and sebaceous glands were entirely free of cell accumulation.

Adenoma Sebaceum.—*Adenoma Sebaceum, zur Kasuistik des.* A. BUSCHKE. (*Derm. Zeitsch.*, xi., 467, 1904.)

A case similar to one described by Kothe (5 A. p. 392 of this Journal) was presented to the Berlin Dermatological Society. Numerous small tumors varying in size up to one-half the size of a pea were rather symmetrically distributed over the face of a boy thirteen years of age: a larger one, about pea-sized and lobulated, of more fibromatous character, was seated near the tuber frontal. They were sharply defined roundish or oblong, slightly prominent, yellowish or red owing to telangiectases, some firm, some compressible. More numerous but smaller tumors situated more closely together, extended over the neck, but farther downward the type of the pendulous fibroma prevailed. On the entire back the skin was covered with pale yellowish, partly flat, partly prominent, almost pea-sized growths, single or in groups, some firm, some hardly observable to the touch. Quite a number of them, particularly angiomatous ones, were perforated by a lanugo hair. Besides, irregularly disseminated pendulous fibromata and also milia-like bodies were present on the skin of the back. On the mucous membrane close to the angle of the mouth a group of three or four distinctly palpable, small (not over pinhead sized) tumors were found covered with telangiectases; also several groups of small tumors in the mucous membrane of the right cheek. Some pigmented and vitiliginous spots were present on the back. The histological examination of the tumors of the face (which, however, were not thoroughly excised, but cut off at the level of the skin) showed that they were not adenomata as expected; those from the back did not show a trace of adenoma, but were of the type of a fibroma with scanty cells partly grouped around the follicles, and little elastic tissue.

In many instances no follicles could be found. The epithelium passes over the fibromatous tissue with only here and there a process of the epidermis reaching deeper. The tumors of the face are either fibromatous or fibro-angiomatous.

Comparing his case with Kolhe's, Buschke is willing to admit both into the class of the so-called adenoma sebaceum, but it seems that the increase of sebaceous glands is not an essential feature of the pathological process. He is inclined to look upon the condition as a congenital anomaly, in the first line of the follicles, which, as often seen in undoubted naevi do not, until later in life, begin to develop any changes which can be clinically recognized, affecting now more the glands, and now more the connective tissue and the blood vessels. B. is therefore inclined to classify these cases with Jadassohn and others as naevi, and as they certainly present a distinct type of their own, to designate them for the present as cases of *Pringle's disease*.

Adenoma of Sebaceous Glands of the Abdominal Wall. W. C. CLARKE.
(*Ann. of Surg.*, xl., 486, October, 1904.)

A tumor five to six centimeters, bulging forward three centimeters was observed in the upper left quadrant of the abdomen on a Jewish girl, eleven years of age. It had first been noticed three years ago as a pea-sized tumor, but it could not be ascertained when it first made its appearance. It had but slowly changed in size and appearance until three months ago; since then it has rapidly grown and assumed a darker color, without even causing pain or any other sensation. The skin over the tumor was thin, smooth, of a darker color, owing to many enlarged blood-vessels; the tumor itself felt soft, fluctuating, apparently made up of two cysts; it was adherent to the deeper layers of the skin, but movable over the fasciæ. After removal it was found to be composed of seven cysts, which took up about four-fifths of the entire mass, the balance being an irregular, wedge-shaped mass of firm tissue. The cysts were filled with a thin, watery, brownish fluid, but the smallest one contained sebaceous material.

The histological examination showed a connective tissue stroma arranged in bands, with fibres arranged in parallel rows, extending between, and at times, within the alveoli, it took up about two-fifths of the firm tissue. In places hyaline degeneration was noticed; the blood-vessels showed some changes in the intima, sweat glands were present and normal. The balance of the tissue consisted of epithelial masses and small cysts. The epithelial cells were arranged in cylindrical and oval masses, in places quite elongated, the width of the alveoli averaging 500 microns. The cells were mostly arranged in small nests, but towards the outside of the alveolus in rows parallel to the boundary; nowhere did

the cells extend into the stroma, but were everywhere surrounded by a band of connective tissue. The cells themselves were large, cuboid, columnar or even cylindrical, body stained easily with eosin, appearing faintly granular, nuclei large, oval, staining readily with hæmatoxylin, nucleoli distinct. Usually, towards the center of the alveoli the cells often appeared in a stage of mucous degeneration, others showed vacuoles. Besides the larger ones, numerous smaller, round, oval or elongated cysts were found with walls varying in thickness, either sharp, clean-cut and limited, or made up of fifteen to twenty-five layers of epithelial cells with the innermost in a state of disintegration. Here and there openings similar to gland ducts were observed, branching in different directions, with sharply defined walls consisting of a number of layers of epithelial cells. The diagnosis of adenoma of the sebaceous glands was based on the deep situation, the complex alveolar arrangement, the formation of compound ducts, the presence of sebaceous matter in one of the cysts, the large size of the cells and their similarity to the cells of normal sebaceous glands. A *résumé* of the literature of true adenoma of the sebaceous glands and of hypertrophy of sebaceous glands either primary or secondary to hypertrophy of the skin completes the article.

Sebaceous Gland Tumors, Senile Hyperplastic of the Face.—*Talgdrüsentumoren, ueber senile (und praesenile) rein hyperplastische, Specieell des Gesichts, mit einer Bemerkung über die Färbung der Acari folliculorum in Schnitten.* B. HIRSCHFELD. (*Arch. f. Derm.*, lxxii., 25.

Jadassohn for several years has called attention to certain well defined, flat nodules, mostly multiple, but not very numerous, which appear on the face of elderly people, mostly males. They usually are irregularly disseminated over the forehead, less frequently the cheek and nose, not symmetrical nor in groups, nor in linear arrangement, from pinhead to lentil size, round or somewhat polygonal, of a whitish to light brownish color. The surface is smooth, showing a more or less wide opening from which sebaceous substance can be expressed. They do not cause any symptoms and usually are found incidentally on patients. The histological examination of a number of these lesions, taken from patients above forty years, showed, like the typical sebaceous nævi, a circumscribed, exuberant aggregation of large sebaceous glands which extend to a considerably greater depth than those of the surrounding parts, but otherwise exhibit but slight deviations from the normal structure.

The larger portion of the paper is devoted to the question whether these lesions are simply circumscribed hyperplasias due to some irri-

tating external cause or belong to a class of tumors, which now are designated by some as adenoma sebaceum, by others as sebaceous naevi. In the latter case they would have to be distinguished as senile or tardy. The question is left undecided.

Incidentally in certain sections stained with orcein, numerous acari folliculorum were seen, which stain well with acid orcein and also with Weigert's stain for elastic fibres. The acari, which usually are found only in the hair follicles and rarely in the ducts of the sebaceous glands, were situated rather deeply in the tissues of the glands themselves.

Acne Vulgaris. *Ueber die Acne Vulgaris.* M. JOSEPH. (*Berl. klin-therap. Wochenschr.*, 1904, No. 14.)

Acne is a folliculitis which usually occurs on the face and back and is mostly found during the age of puberty. It is frequently found in a seborrheic face. Joseph did not find bakers as frequently affected with acne as Galewsky, they ranging only in the fourth order after locksmiths, clerks and cabinetmakers. It begins mostly at fourteen years of age; the greatest frequency occurs at nineteen. In general the mode of living does not seem to have much influence; as to diet, cheese, smoked and pickled meats are to be avoided.

Folliculitis, The Treatment of.—*Zur Therapie der Folliculitiden der Haut.* A. POSPELOW. (*Russ. Jour. f. Haut u. Vener. Krankh.*, 1904, February.)

Where hyperkeratosis prevails, hot baths from 104° to 108° F. with green soap, are recommended, followed by applications of 3 per cent. boric acid solutions, also exposure to hot water vapors or the strong exfoliating pastes. Where induration prevails, incisions and plasters (mercurial and diachylon) are useful. The principal part of the paper is devoted to the application of massage, including vibration, and electric massage.

SYPHILIS OF THE NERVOUS SYSTEM.

By J. M. WINFIELD, M.D., Brooklyn.

Syphilitic Lesions Occurring During Tabes. DALOUS. (*Revue de Medecine*, January, 1904.)

From a series of twenty-one cases collected from his own practice and from the literature, the author attempts to illustrate the coexistence of syphilis and tabes. While he does not consider his findings conclusive of the syphilitic origin of tabes, he thinks that they give a strong basis for that assumption. Of the twenty-one cases examined, nine gave no

history or knowledge of infection. Many of them had symptoms sufficiently pronounced to make a correct diagnosis. The long interval between the primary specific infection and the nervous disease demonstrates that syphilis may remain latent for a long period and then suddenly recrudescence.

A Case of Syphilis of the Nervous System Presenting Clinically an Amnesic Symptom Complex, With Autopsy. Dr. EMMA W. MOORES. (*American Journal of Insanity*, July, 1904, Vol. 67, No. 1.)

Patient, man of good education, forty years old; admitted to the McLean Hospital, Boston, Sept. 9th, 1899; died Jan. 24th, 1901. Contracted syphilis in 1888, had a severe convulsion in 1894, for which there was no apparent cause. He was in good health except for loss of appetite and nervousness. Those who knew him well said his memory became a little foggy. The first six months in the hospital his general condition was good, no headache. The most striking feature was that in walking he deviated to the left and staggered toward the left side; his mental condition was only slightly abnormal. December, 1899, he had a convulsion. The May following there was frequent morning vomiting, the patient began to lose flesh and look worn, his mental condition became weakened, convulsions became more frequent, finally becoming unconscious in January, and died January 24th, 1901.

Autopsy showed thickening of the pia arachnoid but no gummatous exudates. Dura showed no abnormalities. Brain weighed 1450 grams. The dura of the cord appeared diffusely thickened, as well as the pia arachnoid of the medulla and cord. In the posterior root of the third thoracic segment there was a small growth.

Microscopical examination of a large number of sections showed the following conditions:—The meninges at the base were infiltrated, especially in the deep fissures and sulci; in some instances the blood vessels, except those at the convexity, showed the marked alteration indicative of the lesions caused by syphilis; the right hemisphere was most markedly affected with infiltrations and gummatous deposits; the left side of the brain was less involved, the most important gumma was in the peduncle.

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FOLLICULIS OF THE SKIN AND CONJUNCTIVA: REPORT OF A CASE.

By HENRY G. ANTHONY, M.D.,

Professor of Skin and Venereal Diseases, Chicago Polyclinic.

THE patient, the subject of this report, consulted Dr. Joseph Beck (oculist), for a lesion of the eye. As the patient also had an eruption of the skin, Dr. Beck referred him to me for diagnosis of the skin eruption, desiring especially to determine whether the eye lesion was of the same nature as the lesions of the skin.

The patient gives the following history: His father and mother are living and healthy. He has one brother who suffers from hæmaturia, the cause of which is in doubt. He was born in Bohemia and came to this country with his parents when he was twelve years old. He has never had a severe illness. He is now thirty-one years old, a dry goods merchant by occupation. There is no history of syphilis.

Ten years ago he noticed some small, hard lumps in the skin of the backs of the hands: they were painful, suppurated, and healed slowly, leaving small pitted scars. A short time afterwards lesions appeared on the ears and elbows, and lastly a few on the face, and from that time until the present, crops of these nodules have been coming out in the locations mentioned at irregular intervals every few weeks: there are usually not more than six or eight nodules in each crop.

Seven years ago his eyes began to trouble him; small spots formed on the white of the eye which disappeared without leaving scars. From time to time new eye lesions appeared simultaneously

with fresh crops of skin lesions. The introduction of calomel into the eye hastened their disappearance.

He was rejected for life insurance on the ground that he had sugar in the urine, a finding which has not been concurred in by physicians who have subsequently examined him; twenty-three in all.

About four years ago a walnut size tumor formed on the back of the left wrist: for a time it disappeared, then reappeared, and it is now present. Subsequently a similar tumor, which is also present, formed on the back of the right wrist. These tumors were diagnosed ganglions, and an unsuccessful attempt was made to rupture them subcutaneously by striking them with a book; they have also been called fatty tumors.

Status Præsens.—We have here three lesions to be described; an eye lesion, tumors of the wrist, and an eruption of the skin.

The Eye Lesion.—There are no scars or lesion relics on either eye. The eye lesion, which is now present, when first observed, presented the appearance of phlyctenular conjunctivitis, but after being present four months it assumed more the characteristics of episcleritis. It consists of two small nodules at the outer corno-scleral margin of the left eye, having blood vessels running into it. A biopsy of this lesion could not be made without too great injury to the eye.

When the case was presented before the Chicago Ophthalmological Society the opinion that it was folliclis of the eye was favorably received, and it was generally agreed that it was a rare lesion. A full description of the eye lesion of the case will be published by Dr. Beck.

The Tumors of the Wrist.—On the back of the left wrist there is a hen's egg size tumor, and on the back of the right wrist are two tumors somewhat smaller. These tumors are soft and semi-solid; they are not lobulated like fatty tumors, they are more like ganglions.

When the patient is directed to move the fingers while the physician is palpating them, a crackling sensation is readily felt, similar to the sensation experienced when one is walking on crisp snow.

The left flexor tendons are thickened at the wrist. The little finger of the left hand becomes locked when flexed, so that it cannot be extended voluntarily and without the assistance of the right hand.

This has heretofore been called "writers' cramp." The diagnosis is obviously tendo-vaginitis. The tumors were operated on by Dr. Carl Beck with the idea in mind that we had here a tuberculous tendo-vaginitis producing folliclis, and removal of the diseased tendon sheaths would check the crops of ocular and cutaneous lesions. The

tumors were found to be tendon sheaths which were thickened; they contained an abnormal amount of thick, gluey fluid. The serous surface of the tendon sheaths was thickly studded with polypoid excrescences. There were no rice bodies present.

The histological examination of the tendon sheath tissue showed a highly vascular connective tissue identical in appearance to the tissue found in nasal polyps, except that it was covered with endothelium instead of epithelium.

Duplay and Reclus say that tubercles are not found in the vascular polypoid tissue which is formed from the inner layer of tendon sheaths, but that they are present in the outer layers only. Therefore, careful examination was made of the outer layer but no tubercles could be found. Inasmuch as a very few tubercles may produce tendo-vaginitis, such as was here present, a negative finding does not exclude tuberculosis.

The removal of the tendon sheaths did not check the appearance of crops of nodules in the skin. During the two months succeeding the operation that the patient was under observation new crops were continually appearing and one lymphatic gland in the neck on the left side enlarged to a moderate degree.

The Lesions of the Skin are present on the lobes of both ears, both elbows, the backs of both hands and fingers: there is a patch over the right thigh and two nodules on the nose.

The lesions, studied during two showers, begin as *petit pois* size nodules situated in the derma, at first they can only be detected by the patient, within twenty-four hours of their appearance they come to the surface, producing an acuminate papule, the epidermal covering of which is at first red and later blue in color. In some instances the papules become capped with a pustule which, on drying, forms a crust firmly adherent to an underlying central plug of necrotic tissue. This central plug is later exfoliated leaving a varicellaform scar. Some papules undergo involution in ten to twenty days without leaving a scar. With many crops there appears from one to two bean-size lesions which are more deeply situated; they are underneath the skin, they do not come to the surface and it requires three months' time for them to be absorbed.

The Ears.—The helix of the ear, especially its upper border, is partly destroyed and deformed by scars presenting an appearance such as one observes after frost-bite. Scattered here and there over the surface of the auricle of the ear are a few characteristic varicellaform scars. In cold weather the entire surface of the helix and

auricle presents a cyanotic erythema which contrasts markedly with the lobule which is normal in color and not scarred.

The Hands.—The palmer surface of the hands and feet are cold, clammy, and constantly bathed in perspiration, they have never been the seat of an eruption. On the backs of the hands, but not on the feet, are scattered varicellaform scars and papules in all stages of development as described above.

The same vascular disturbance is to be seen on the backs of the fingers as is present on the auricle of the ears; acroasphyxia, which is only noticeable in cold weather. There is no enlargement of lymphatic glands. The patient is well and healthy, his lungs are normal, pulse is sixty, and temperature normal. The urine has a specific gravity 1025—no sugar, no albumen, and an excess of carbonates.

The microscopical findings in folliclis depend on the age of the papule examined. The one which we examined in this case had been present three days at the time it was excised. It was small pea-size and presented a beginning central necrosis. The microscopical findings correspond to those of folliclis. The epidermis is normal except in the necrotic area; the necrosis affects only the epidermis, not extending into the derma; the corneous layer is separated from the rete Malpighii surrounding the central necrosis.

The veins in the derma and subdermal tissue are dilated, they contain coagulated blood and are surrounded by an inflammatory exudate containing polynuclear leucocytes. The veins just below the prolongations of the rete run parallel to the surface of the skin while those situated between these parallel veins and the coils of the sweat glands extend in all directions; some are perpendicular in their course, others are cut obliquely, and still others present transverse sections; they can easily be followed as they are surrounded by a well-marked exudate.

Inasmuch as this case has been examined by almost every dermatologist in Chicago a consideration of the various diagnoses which have been made is instructive.

One of our colleagues who saw the case two years ago called it lupus erythematosus disseminatus of Kaposi; this diagnosis is correct from the standpoint of Boeck, who makes no distinction between the disseminate form of lupus erythematosus and folliclis.

In my opinion, this is a grave error in classification, inasmuch as the papulo-necrotic tuberculide is a class by itself, and, clinically, presents no resemblance to lupus erythematosus.

Jadassohn, Brocq, Galloway, Jackson, Anthony and some other writers do not believe that every case of lupus erythematosus is a tuberculide. Those cases which are tuberculides are usually associated with tuberculosis of the lungs while folliclis is more apt to be associated with surgical tuberculosis; that is, tuberculosis of joints, glands, etc.

Another of our colleagues, whose opinion we hold in high esteem, observing this case six months ago, during an interval of crops, made the diagnosis hydroa vacciniforme.

That a mistake in the diagnosis of folliclis may easily be made in the interval of crops is shown by DuCastel's case which was diagnosed as a potassium iodide eruption.

At the time that our case was diagnosed hydroa vacciniforme, the only active lesion was a bulla on the ear. That bullæ occur in the tuberculides is shown by the cases reported by Hallopeau as *toxi-tuberculide pemphigoides*.

The difficulty in the diagnosis of hydroa vacciniforme from folliclis has been well shown by Bowen. In an article published in 1894 he mentions the differential diagnosis of hydroa vacciniforme and what was at that time called acne necrotica. He said: "Bronson and Fordyce have also reported a case of acne varioliformis of the extremities in which Fordyce's microscopical examination offers many points of analogy with hydroa vacciniforme. The relationship of these three affections, if any, I shall not attempt to determine."

They have, at least, the common features of a circumscribed necrosis, followed by variola-like pits and may be studied side by side with advantage.

The Pratique Dermatologique and Marcek's Handbuch both recognize the Bronson-Fordyce case as a case of folliclis. Crocker says cases of hydroa vacciniforme developing in adult life have been reported, and that in some instances the eruption has appeared on covered parts of the body.

In the presence of such a case the clinician should exercise unusual care to exclude folliclis. Clinically we find that in hydroa vacciniforme, when the classical vesicles have appeared a number of times in succeeding years, they give way to crops of papules which are bright red, pointed and superficial; while, on the other hand, the papules of folliclis are at first deep seated and they push their way to the surface. Observing the manner in which the papules develop is a matter of importance.

Another diagnosis which has been made in the case is Raynaud's

Disease. The eruption of the skin here present is a necrotic papule which is no part of the clinical picture of Raynaud's Disease. The only justification for this diagnosis is the acroasphyxia which was present after exposure to cold. Had those who made this diagnosis seen the case in ordinary temperature they could not have considered Raynaud's Disease. In several of the cases reported by French observers, areas of dark bluish or cyanotic erythema have been present.

THE LOCATION OF EXTRAGENITAL CHANCRES.

By DOUGLASS W. MONTGOMERY, M.D.,

Professor of Diseases of the Skin, University of California.

DELIVERED AS THE TOLAND LECTURES AT THE COMMENCEMENT
EXERCISES OF THE UNIVERSITY OF CALIFORNIA,
MAY 15-16, 1905.

WE assemble here to-day to do honor to the memory of Hugo H. Toland, one of the founders of our school, and its first benefactor. He was a good clinician and a successful surgeon, and it is befitting that in honoring his memory we discuss the kind of work that, if he were alive, he would have delighted in.

In the hierarchy of diseases, syphilis is easily the chief, no matter from what point of view it is taken. Its history goes back into the first written records of events and beyond, for evidence of the existence of the disease is found in human bones before man had learned to write his story. With the possible exception of tuberculosis, the literature of syphilis is the largest in medicine and is, by far, the most interesting. The symptoms of syphilis are so varied that it has been called the Proteus among diseases, as it may simulate almost any of them. Its pathology is almost as varied as its symptoms, and may implicate any organ in the body, and its effects on the tangled web of human life are more diversified than those of any other disease.

Here we come to a point I wish to especially bring out. A great hush falls over society at the mention of the word "syphilis." Newspapers and lay journals will have none of the word. They will print most horrible sexual details, but they will avoid that word or any reference to the disease. It is the same with novels; it is the same with the drama. The sale of many newspapers is kept up by

the piquancy of their scandal column, and they rely on their salaciousness to carry their advertisements. Lubricity is a matter of business with them, but they print nothing of syphilis, and never mention the word for fear of losing subscribers.

Not long since a play was written by Brieux. There was nothing immoral in the play and nothing lewd, but it was a dramatization of the sinister effects of syphilis when it is introduced into a family. The Parisian drama is not dainty in sexual matters, but for a long time this play was not allowed to be put on the boards, because it dealt with syphilis. Usually what society does as a mass is wise, but what wisdom can there be in suppressing knowledge of a subject that has such far-reaching effects on the human race. It strikes all classes and all ages, and the innocent as well as the guilty are directly involved, for ten per cent. of the men who have syphilis get it in a perfectly innocent manner, and twenty-five per cent. of the women. It strikes the palace as well as the hovel. Leprosy, cholera, and many other diseases are essentially maladies of the poor, but syphilis hits all classes.

It would at least seem wise that the people should know something of the nature of this fearful malady that is among them, and something of the manner of its transmission, as we know that the greatest safeguard against any evil is a knowledge of it. These lectures are devoted to a consideration in the first place of the several parts of the body where syphilis is inoculated, and, secondly, of the many ways the virus may be transmitted.

There is prevalent an unfortunate belief that all those getting syphilis acquire it through their own fault, and that the disease may be looked upon as a just punishment for sin, or even as a salutary deterrent to those who might commit sin. Persons holding these views think that nothing should be done either to control syphilis, or to ameliorate the afflictions of those who have it.

Now from a natural history point of view, syphilis is a disease that comes to those who are lewd in a greater measure than to those who are sexually moral only because of certain conditions, but these conditions are frequently fulfilled by perfectly moral people, and in a perfectly moral way.

Syphilis is most frequently caught by those guilty of illicit sexual intercourse, because such intercourse is apt to be promiscuous, and promiscuous sexual intercourse readily favors the transmission of certain contagious diseases, especially those requiring actual contact. Syphilis requires actual contact. Its virus is of the kind

called fixed, that is to say, it remains attached either to the body of persons having the disease, or to utensils or objects soiled by them, and does not fly about. Therefore, for the transmission of the disease it requires direct contact either with the person having syphilis, or with some object soiled by the virus. Wherever this virus is inoculated there the chancre will appear. This virus is secreted by the tainted individual for a long time after being infected, through what are called the lesions of the secondary stage, which occur particularly on the skin and the mucous membranes. One lesion in a cavity will leaven all the fluid in that cavity. One mucous patch in the mouth will render all the sputum infective, and will soil the lips, while a mucous patch in the vagina will do the same for that cavity. If, therefore, infected vaginal secretions are inoculated into a wound, the chances that a chancre will develop are almost certain unless the inoculated individual has become immune through already having acquired the disease. It, therefore, follows that the sexual act with its often rude apposition of delicate mucous membranes and with consequent frequent slight wounds and tears, presents an excellent opportunity for the transmission of the virus from one person to another. From what has been said it is plain that an innocent person handling a utensil soiled with syphilitic virus, or a wife having intercourse with her syphilitic husband, may fulfill the conditions of infection just as fully as the lewd. Then, again, syphilis is a hidden disease, catching its victims unawares, and the pure in mind and behavior are, under certain conditions, as readily or even more readily entrapped than any other.

In antiquity, extragenital chancre seems to have been recognized, but the knowledge was imperfect and sporadic, and lacked that sequence and scientific accuracy without which no knowledge seems to be permanent.

For instance, the Baal Peor plague, which is mentioned in the Bible in the time of Moses, was extremely contagious, and was usually of genital origin, but could be communicated from one person to another, through kissing or mediate objects.¹

All down through the Middle Ages, there are scattered accounts of epidemics of leprosy that may have been outbreaks of syphilis spread extragenitally.

Our knowledge of syphilis, however, first took on continuity during the Renaissance, and Gaspard Torella, family physician for the Borgias, notes in his book on syphilis (in 1499) that the first manifestation of the disease may appear on the genital organs or on

any part of the limbs, in nursing women upon the breast or lips, and in nurslings upon the face or in the mouth.²

This knowledge of extragenital chancre was again lost, and Fournier says that up till 1859 extragenital chancres were considered to be extremely rare and a real curiosity, but at the time he wrote in 1884 they were abundant and superabundant in all the wards of the Hospital St. Louis, and he explains this as a result of more close observation and more exact diagnosis.³

Since then much valuable material has been collected in regard to the frequency of extragenital chancre in different countries, its frequency in regard to genital chancres, its relative frequency in the two sexes, its relative frequency in different situations on the body, and also about the manner of its acquisition.

There is perhaps nothing in the course of syphilis that so strikingly brings out the hidden nature of the malady as extragenital chancre. Syphilis pursuing its ordinary course went unrecognized for ages, and was never clearly delineated until a fearful epidemic in the latter part of the fifteenth and the beginning of the sixteenth centuries forced the attention of physicians to it. These physicians, it must be remembered, were highly educated men, with minds cleared and freed from prejudice by the intellectual activity of the Renaissance. A little reflection will show how difficult it must have been, even for them, to gather into a consonant whole the facts strewn so interruptedly along the long course of this mysterious malady. The time elapsing between the inoculation of the disease and the breaking out of its first manifestation, then again the time elapsing between the outbreak of the first manifestation and the appearance of the general constitutional symptoms, is, in both instances, so considerable as to often throw one completely off the track, even if trained in modern scientific methods. In addition to the long, frequently interrupted course of the malady there is a tendency to concealment. This all shows how difficult this disease must have been to elucidate, even when pursuing a usual course. It was, therefore, so much the more difficult of discovery in any of its unusual manifestations.

A man would present himself, for instance, with what appeared to be a boil or ulcer or carbuncle, and after it had apparently healed or almost healed, he would break out in a general rash simulating that of measles or smallpox, and having nothing about it that would suggest its connection with the original lesion. It therefore indicates a fine scientific imagination that could leap across this hiatus in the facts. Very frequently, indeed, now, even with our popularization

of knowledge, our acquaintance with the slow process of nature, our familiarity with the hidden ways of bacterial infection, and our clear descriptions of the primary lesion in all situations, the disease frequently goes unrecognized. And the longer a chancre goes unrecognized, the greater the danger of spreading infection. It is particularly in extragenital chancre that occur those deplorable epidemics involving whole families or large numbers of people in a community. A midwife, for instance, with an infected finger, may, by infecting the mother or the newborn babe, leave a far-reaching trail of innocently acquired disease behind her.

It is for the purpose of giving some idea of the prevalence of these ways of infection that the present statistics have been collected.

Of the 1,217 cases of syphilis of which I have notes, 1,149 of them had their initial lesion, either actually or presumably, on the genitalia and 67, or 5.5 per cent. had their infection extragenitally.

The figures of some other observers touching this particular point are:

	Per cent. of infections as extragenital.
Krefting ⁴ (Christiania), reports.....	15.6
Fournier ⁵ (Paris), reports.....	9.0
v. Broich, ⁶ Bonn (Germany), reports.....	9.0
Van Walsen ⁷ (Amsterdam), reports.....	8.5
Mracek ⁸ (Vienna), reports.....	7.5
Bulkley ⁹ (New York), reports.....	5.5
Finger ¹⁰ (Vienna), reports.....	1.3

The most astounding statistics come from some of the country districts of Russia, where 75 and 80 per cent. of the syphilitic infections are reported to be extragenital. These extraordinary figures will be discussed later. The figures of Bulkley and myself are the same, and the coincidence is striking, as it is probably due to similarity in conditions.

Bulkley's material was drawn, as was mine, from an ambulatory for diseases of the skin, and from private practice that was largely ambulatory, and in both instances also the data were collected in American cities that are seaports. Bulkley makes the further statement, which, I think, is probably correct, that an ambulatory gives a better general idea of the prevalence of syphilis in a community than even a genito-urinary service, because every case of syphilis will at some time in its course present skin lesions, and is

therefore apt to come to the notice of a skin specialist. While this is true of syphilis in general it is not altogether so of extragenital chancre, and for the following reasons:

The course of extragenital chancre is short, therefore, the time during which it may be seen and diagnosed is, relatively, much less than in syphilis in general. A case may, therefore, be diagnosed as one of syphilis, yet the facts stamping it as one of extragenital chancre may long since have disappeared. That this often occurs there can be no doubt, for probably every physician of any length of experience has run across cases seen just as all evidence of their extragenital chancre was disappearing. A little longer and no evidence would be present, and the case would be categorized as one of ordinary infection. Then, again, the disease is so subtle, that many undoubtedly having chancre never know that they have syphilis, and never consult a physician at all. Also, many patients consult those who are not familiarized with syphilis, and who are, therefore, not on the alert for it. Those having chancre of the throat, for instance, go to a general practitioner, or possibly to a throat specialist. Lately I have seen two cases of chancre of the tonsil that had passed through the hands of well-trained men undiagnosed, and were finally spotted by a general practitioner, who kindly brought them to my notice. Krefting, of Christiania, who reports fifty-eight cases of chancre of the tonsil, says that most of the patients went first to the diphtheria lazaretto and from there were removed to the clinic for syphilis. Chancres of the finger fall into the hands of the surgeon, the patients thinking they are suffering from felon or "run rounds," and these, at least, escape from being included in any statistics on syphilis. Then, again, the unusual position of the chancre and the difficulties surrounding the diagnosis are such as not infrequently to give rise to errors, even among those who are on the alert for just such occurrences. Fournier says that for years he overlooked chancres of the tonsil, and that for a long time after first noticing them he did not dare to make the diagnosis because the lesion was so unheard of.¹¹

Celso Pelizzari thought that syphilis is very frequently acquired in childhood, and that physicians see hardly more than one-tenth of all cases.¹² It is certain, therefore, that the above statistics give only an inkling of the prevalence of accidental syphilis. If, therefore, such a large number of people acquire this disease innocently, how unjust and unwise it would seem to keep all knowledge of it from them. They are rendered, through their innocence and

their ignorance more dangerous to the community at large than are the vile, as the vile are usually marked by their viciousness, and in vain is the net spread in the sight of any bird, but the innocent here trip the innocent and are unaware of the evil they do.

THE RELATIVE NUMBER OF MEN AND WOMEN WHO GET THEIR
SYPHILIS EXTRAGENITALLY.

In comparing the number of men and women who get syphilis in the usual way, and, therefore, genitally, one is struck with the overwhelmingly greater number of men affected. The reasons for this are that the sexual passion lasts a much longer time in the life of a man than of a woman, that it constitutes a much stronger passion in men than in women, and that men have more freedom. Although in females, sexual life begins early, earlier than in males, yet sexual passion starts in much later. Metchnikoff has pointed out that sexual passion in females often does not commence till after marriage, indeed, often not till after the first child is born. In women, therefore, the sexual passion commences late, and ends abruptly at the menopause at about forty-five. There are very few exceptions to this rule. In males, sexual passion commences earlier than in females, and instead of ending at forty-five, it is continued on much longer, sometimes very much longer. The greater the length and the greater the strength of the sexual passion, the greater the risk of illicit sexual intercourse, and, therefore, the greater the risk of contracting syphilis. Correspondingly, the transgressions of men are infinitely more numerous than those of women, and they pay the penalty. As Chrysostom has said, "Where sin is, there the storm rages." In my own statistics of genital infection there were 899 males as against only 318 females, and even this does not give a correct idea of the proportion of those guilty of illicit intercourse in the two sexes, as most men get their syphilis from one set of women, the prostitutes, and, therefore, guiltily, while a large number of women get their syphilis from their husbands, and, therefore, innocently. In my experience I have encountered a great many cases where husbands brought home syphilis to their wives, but I have only seen one case where the wife brought home syphilis to her husband.

In extragenital syphilis matters stand quite differently. Extragenital syphilis is almost always accidental. It is the syphilis of the innocent, and the number of males and females getting the disease in this way are less unequal. In my cases there were 36 males and 31 females.

The male infections are, therefore, more numerous than the female, but do not show anything like the preponderance they do in genital infection, where there are nearly three times as many. One of the reasons for this comparatively slight excess in males in my statistics was the number of physicians who got their syphilis extragenitally. In the above 67 cases of extragenital syphilis there were six doctors, all males, who got their infection in the exercise of their duties as physicians. The real reason for the excess of males over females in the acquirement of extragenital chancre, is that its acquirement is, as above mentioned, in the nature of an accident, and, therefore, comes most frequently to those who are the most active and most exposed.

Almost all statistics show the same excess of males over females, and where they differ, the causes of their difference are very interesting:

		Males.	Females.
L. Veslin, ¹³	reports	16	10
H. Feulard, ¹⁴	“	24	15
H. Feulard, ¹⁵	“	55	27
Morel-Lavallée, ¹⁶	“	27	16
Bulkley, ¹⁷	“	59	54
Peters, ¹⁸	“	11	5
Neumann, ¹⁹	“	34	48
Krefting, ²⁰	“	61	231

If we exclude Krefting's statistics, the relative proportion would be 56.5 per cent. for the males, and 43.5 per cent. for females.

In all the above statistics, the males are more or less in excess of the females, with the exception of Neumann's and Krefting's statistics. In Neumann's table, the excess of females over males lies in the greater number of chancres of the lips, and in the addition of some chancres of the breast. In Krefting's table the excess lies in the greater number of chancres of the lips in females, and in the much greater number of chancres of the pharynx, and in a very great number of chancres of the breast. The large number of chancres of the lips in females is due undoubtedly to kissing. Here we have apposition of delicate mucous membranes, which may be the seat of mucous patches, or may be soiled by sputum, contaminated by secretions from mucous patches within the mouth, ready to be inoculated into cold sores, cracks, or fissures on the lips of the other person.

Chancres of the breast and of the throat that are so rare with us, are frequent in Sweden, Russia and Austria, as illustrated by the

statistics of Krefting, Pospelow and Neumann. They are not more numerous in those countries because of any evil-doing, but because of different conditions. Chancre of the breast is frequent there, because human beings are cheap. Wet nurses with us are a luxury only to be enjoyed by the wealthy, whereas in those older countries even foundling children are put out with wet nurses, and foundlings are the very children who are most apt to have syphilis, and they, therefore, communicate it to the breast that nourishes them.

There is still another custom in regard to nursing that aids in the spread of syphilis. In some countries it is considered an act of complaisance, when mothers meet at parties, to change babies, and one baby may suckle several mothers. It seems impossible to convince the peasantry that there can be any danger in this. They have the pathetic delusion that no harm can come from such innocent creatures.

Chancres of the throat and tonsil are much more prevalent in some countries than with us, for instance, in Sweden and Russia, particularly in Russia. Pospelow makes the direct statement that this is not to be attributed, as one might readily suppose, to indecent practices, but to the virus being introduced into the mouth in kissing, and especially in eating. Krefting also states that it can be taken as a fact that unnatural sexual appetites played no part in the very large number of chancres of the throat he reports.²¹

The manner of eating among the lower classes in Russia, and even in the Scandinavian peninsula is very primitive. A large dish of thick porridge is placed on a bench between two men, who sit straddle on the bench. Each man is furnished with a large wooden spoon. In Russia, and presumably also in other countries where this custom prevails, the porridge is quite thick. These wooden spoons are never washed, but when the meal is over they are licked off and stuck into a hole in the wall to be ready for the next meal. The entire outfit is nasty and dirty. It is no wonder, under these circumstances, that the virus is transferred by the spoons to the food, where, on account of the thickness of the porridge, it sticks undiluted to the outside of the mass.

It must not be imagined that this porridge or mush of the peasantry is like our breakfast foods. It is much heavier and thicker and is intended to form a strong, tough mass that, as the working-men express it, will stay by a man. In medical language this means that it is a concentrated thick mass of nourishment that the gastric juices find some difficulty in breaking down and dissolving.

All agricultural people that are too poor to use meat and have to work hard and live on cereals, use these heavy forms of bread, for this porridge is a kind of unleavened bread. A chunk of this mass is taken up in the wooden spoon and greedily swallowed. When this mass reaches the fauces, it excites a stronger reflex than more delicate foods would, and this forces the undiluted syphilitic virus into the cavities of the tonsils.

Still another way of acquiring a chancre of the tonsil is through the "Zutzel."²² This is a mass of flour tied up in a rag and dipped into hot milk and given to the baby to suck. The mother or attendant after dipping it into the milk takes it into her own mouth to try the temperature. In some districts in Russia, where milk is scarce, the mother will chew a piece of bread and tie it in a piece of rag for the baby. The transmission of syphilis either from the baby to the attendant or *vice versa* is therefore easy to imagine.

It is thought that during the great epidemic that swept through Europe in the end of the fifteenth century, syphilis was spread possibly more extragenitally than genitally, and because of conditions similar to those enumerated. It does spread in Russia in this way and to such an extent that one hundred per cent. of the inhabitants, the entire population, in fact, of some districts becomes infected. In some instances almost all the infections are extragenital, and the disease is not considered shameful. Its nature is not known, and it is called the "bad disease" on account of its manifestations, but not on account of its moral aspect. In fact, in many of the districts the peasantry are strictly moral sexually.

LOCATION OF EXTRAGENITAL CHANCRES IN DR. D. W. MONT-
GOMERY'S CASES.

Of the 67 cases of extragenital chancre seen in my practice the location of the lesion was noted in 58:

Cephalic.

Lips	25
Tongue	3
Gums	1
Corner of mouth	4
Tonsil	1
Cheek	1
Eye	1
Neck	1

Trunk and Limbs.

Abdomen	5
Breast	1
Natis	1
Anus	3
Fingers	7
Wrist	1
Forearm	2
Back of hand	1
<hr/>	
Total	58

By far the most frequent situation for extragenital chancre, as shown in my table, is on the lips. Of the 58 cases, 25, or over 42 per cent., were in this situation, and if the four at the corner of the mouth be added to this, it will make 29, or over 49 per cent. for this orifice alone. The chief reason for this, as above indicated, is kissing, and accordingly we find that 20 of these chancres, or nearly 68 per cent. are in women, the sex most addicted to this mode of salutation. Many chancres of this orifice may be ascribed to conveyance of the syphilitic virus by the hands or by soiled utensils.

Celso Pelizzari in commenting on this says that most of extragenital syphilis commences about the mouth, being acquired by kissing, or in infants by suckling.²³

I have histories of 22 cases where the lip affected was designated, and of these there were only five of the upper to 17 of the lower. Other observers have also noticed the same preponderance of infections of the lower lip:

	Males.	Females.
Bulkley, ²⁴ shows	16	39
Peters ²⁵ (Lassar's clinic), shows	4	8
Neumann, ²⁶ shows	18	28
Veslin ²⁷ (Fournier), shows	1	9
H. Feulard ²⁸ (Fournier), shows	8	10
Pospelow, ²⁹ shows	25	22
Feulard, ³⁰ shows	25	14
Morel-Lavallée, ³¹ shows	9	7

Thus 56.4 per cent. of chancres were on the lower lip, and 43.6 per cent. were on the upper lip.

It will be seen by the above that in two sets of statistics from

Fournier's service the number of infections of the two lips is nearly equal, and the Pospelow statistics show a greater number of infections for the upper than for the lower lip. It would be interesting to know what conditions led to this departure from the rule, for the reason why the lower lip is much more frequently infected than the upper seems to be clear. It is largely due to its position.

The lower lip projects farther, and has a larger, more exposed red border, is more liable to wounds and cracks, and is oftener attacked by herpes. Herpes exposes to syphilitic infection, because of the exposed, raw surface favoring inoculation. In addition to these injurious influences the lower lip suffers, there are the traumatisms from the teeth. The lower lip readily curls in between the teeth and is frequently pinched by them and bitten, whereas a distinct effort has to be made to get the upper lip between the teeth.

Next in frequency to chancres of the lips come those of the genitoanal region. Adding together those of the abdomen, of the anus, and of the natis, there are nine, or 15 per cent. in this region in our table. Many of these seem to be acquired through sponges or garments, and some appear to be due to inoculation by scratching in scabies and crablice with nails soiled by the syphilitic virus. Chancre of the eye is very rare, and we have only one case in our table. Debeck, in 1888, collected 94 cases, of which France furnished 55, Germany and Northern Europe 10, Great Britain 17, and America 12.³²

Fauchelaume attributes 25 per cent. of chancres of the eye to kissing, and then goes on to enumerate other means of infection, such as the use of contaminated napkins, towels, handkerchiefs, and infection by soiled fingers. Physicians become infected in the eyes during examinations of the throat, through patients coughing and ejecting droplets of contaminated saliva, and mothers cause chancres on their children's eyelids by moistening crusts with their contaminated sputum.³³

As a very rare situation for chancres, one on the heel may be mentioned, reported by A. T. Büchler.³⁴ It was in a child seventeen months old, who was infected by its mother, who had condylomata.

Dr. Dudley Tait has reported a case where the chancre appeared in a most rare situation: on the stump of a Fallopian tube. This case I have given *in extenso* in another paper, and occurred in a woman on whom Dr. Tait had operated for salpingitis. After the patient left the hospital a sinus leading down to the right Fallopian tube was still discharging. This sinus was packed daily with gauze

by a "lady friend" who had syphilitic lesions in the mouth, and instead of using a probe to insert the gauze, a manicure stick was used, which she held between her lips while she changed the dressings. In due time the patient broke out in the rash of secondary syphilis, and all the symptoms pointed to the chancre being situated at the bottom of the sinus.³⁵

It may be remarked that there are no cases of vaccinal syphilis reported in this paper, and none were found, which is undoubtedly due to the almost universal use of cow vaccine.

Hereditary syphilis that is sometimes included in statistics on extragenital infection, has not been included in this paper.

Some chancres of the genitalia ought to be reckoned in with extragenital chancre because they are not acquired venereally. A woman under my care probably got her syphilis from another syphilitic woman living in the same house, and whose vaginal douche she had used.³⁶ This is an instance of intimacy, which is possibly quite rare. Then, again, a doctor consulted me for a chancre of the penis, acquired by being treated by a genito-urinary specialist for an old stricture. He had no doubt that the specialist inoculated him. Although these genital chancres, because of not being acquired venereally, ought really to be reckoned in as extragenital infections, yet we have not done so, but will, probably, at some future time give them a separate consideration.

In looking back over the present paper surely anyone will be convinced of the immense amount of unmerited syphilis among us. The above statistics showing as they do a minimum of over 5 per cent. of all syphilis as contracted accidentally can be considered as a rebuke to those sourly ascetic moralists who would ignore the disease and are hostile to its treatment, or to the employment of any means looking to its reduction or amelioration.

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A CASE OF CHRONIC PYOGENIC ONYCHITIS CURED BY THE X-RAY.

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THE history of the following case illustrates how difficult in some cases is the cure of this condition. Therefore any additional method of treatment that is of value deserves recognition.

The case was shown to the Dermatological Society of Philadelphia both at the beginning and at the end of treatment.

Mrs. W. W., aged fifty years, married, was referred by Dr. Walter Brown. At the age of sixteen she ran a needle into the thumb of the left hand, which was followed by a "run-around." At the age of thirty the matrix of the nail of the same thumb became inflamed without apparent cause. This lasted about a year, after which it disappeared, apparently as a result of local applications. No internal treatment was used.

Since then she has had four attacks. Each of the first four attacks lasted about a year: each affected the same thumb nail, and no others, and each was followed by the regrowth of a good nail. All of the attacks seemed to follow general debility resulting from nervous dyspepsia. The fourth attack occurred about six years ago, and seemed to be influenced by internal medication, but the same medicine, from the same physician, had no effect upon the fifth attack, which began four years ago, and continued with no improvement until the X-ray was applied.

During the six weeks preceding the beginning of X-ray treatment potassium iodide and mercury were given internally and bichloride of mercury was used locally with no improvement, and, in fact, the condition seemed to be slightly worse.

All medicine was then discontinued, and X-ray treatment was begun February 27, 1905. At this time the matrix of the thumb and second finger were a deep red color, swollen, indurated and tender. This condition extended backward as far as the first joint. The nails were lost and the bed of the nail showed a very ragged appearance, and many small pustules (Fig. 1). Cultures and cover-glass preparations made from this pus showed nothing but staphylococci.



FIG. 1.



FIG. 2.

PYOGENIC ONYCHITIS CURED BY THE X-RAY. 357

X-ray treatment was given three times a week, with the tube six inches distant, a two-and-one-half-inch vacuum, and five minutes' exposure on each finger, using about one milliamperere (Röntgen ammeter) through the tube. Improvement was noted after two weeks. There were fewer pustules, less pain and less swelling. Between February 27 and May 10, 1905, there were 25 treatments given. At the end of this time she is apparently well. No pain, no tenderness or swelling are present. The skin is smooth and almost of the same color as the surrounding skin and a new nail is forming (Fig. 2). The nail has continued to grow one month after the last treatment.

The case resisted all forms of internal and local treatment, and then yielded promptly, or, at least, in three months, to the X-ray. The disease seemed to be due to a mild but persistent infection by the staphylococcus.

The case seems to be important not only because it illustrates a new method of treatment of this condition, but may indicate a wider field of usefulness in the treatment of chronic pyogenic infections.

EDITORIAL.

PITYRIASIS AND DESQUAMATIVE DISEASES.

THE second volume of Sabouraud's treatise on diseases of the scalp is devoted to pityriasis and desquamative diseases and, as in all of his writings, Sabouraud brings much that is new and elucidating into the confusion which has existed on this subject since the earliest medical writers.

The first part of the book is devoted to the history of these affections from the time of Celsius to the present day and covers over two hundred and fifty pages. To those interested in the history of medicine, and especially in that branch which constitutes our specialty, Sabouraud reveals himself in a new rôle as a savant historiographer of the evolution of medical theories through ages.

What a confusion of opinions in this historical review? And yet this confusion is quite understandable when one considers the close clinical relationship of pityriasic affections to exudative affections which has tempted some authors to envelop them under the comprehensive mantle of eczema, while others, confusing the, at times, co-existing flow of oily secretion, have placed them under the group seborrhœa, and others regarding them as scaly affections have, therefore, closely allied them to psoriasis.

Indeed, the disputed point as to what group pityriasis capitis should be allied has scarcely changed for two thousand years. Celsius, in the first century, wished to range pityriasis capitis under eczema when the condition became humid, while Paul, of Egina (sixth century), and Alexander, of Tralles (seventh century), wished to classify pityriasis capitis under ichthyosis.

To particularize, Sabouraud shows that, in almost every point, the greatest diversity of opinions has prevailed during centuries.

First—*Topography*. Some writers would limit pityriasis to the scalp, beard and eyebrows; others would include pubic, axillary and genital regions; others would add the face, chest, lips; even make of it a generalized eruption, which the first group strongly denied.

Second—*Characteristic symptoms*. Some authors insisted upon dryness of the scale as characteristic; even insisting that if under the scale the slightest degree of redness or humidity existed the diagnosis of pityriasis should be excluded, and that it should

be called an eczema, or, at least, that the pityriasis was complicated with another disease quite distinct from it. Others, on the contrary, did not consider the dryness of the scale as a necessary characteristic, but even attributed to pityriasis an oozing stage. It is curious to follow the ascendancy of first one, then the other, of these theories.

Third—*Limits embraced by the term*. Some teachers divided the morbid entity of certain writers into two, three or even ten morsels, each with different attributes. In fact, he quotes twenty different names given to pityriasis.

Fourth—*Etiology*. Some authorities have considered it a depurative disease—the elimination through the skin of some bad humors. Others have regarded pityriasis as due to a dyscrasia—from the darts of diathesis of Hardy to the arthritism of to-day. Finally, others have regarded it as a simple congenital malformation.

Fifth—*Histo-pathology*. Here the difference of opinion has been just as great. Hebra considered it as a concrete sebaceous flux. Fox, Van Harlingen, Piffard, Auspitz, reestablished it as an epidermic exfoliation. Unna attached it to his true eczema, Török to psoriasis and Audry to ichthyosis.

After having thus shown the impossibility of solving the problem by clinical methods, Sabouraud announces his determination to give to bacteriology and histo-pathology alone the right to decide.

Without attempting to enter into a full description of the facts which he presents with a wealth of detail accompanied by numerous photo-micrographs and sketches, he arrives at conclusions which may be condensed about as follows:

Pityriasis Capitis is a disease localized almost exclusively upon the hairy regions, especially the scalp, with important medio-thoracic distribution and less important distribution in all the hairy parts of the body; a chronic disease characterized by a dry, shedding scale, without any subjacent inflammatory reaction, very analogous by its desquamation, superficiality, and permanence in the same regions, its slow diffusion, its recurrence after apparent cure, etc., to the epidermic mycosis of the glabrous skin known by the name of *pityriasis versicolor*.

Pityriasis capitis was considered by Willan as the type *par excellence* of the group of desquamative affections and placed by him beside *pityriasis versicolor* for the reasons above given.

Pityriasis capitis is a dermatomycosis caused by a particular "spore" discovered by Malassez, which at present has not been grown on artificial media, and which he calls *Pitysporon Malassezii*.

Here, again, the resemblance to pityriasis versicolor is even more striking, as the microsporon furfur, discovered by Eichstedt as the cause of that disease, has not yet been cultivated, but its causal relation is undisputed.

In its normal type pityriasis capitis shows no inflammatory reaction other than the scale, but in numerous cases one may see the clinical type transformed. This other type is pityriasis "apparently oily" with steatoid or greasy scales. From anatomical and bacteriological study this second type appears to be the result of an added staphylococcic infection of the surface. The apparent steatization of the scale is, in reality, an impetiginization—that is, a serous infiltration of the scale commensurate with the development of the greasy condition.

The transformation of a dry pityriasis into a steatoid pityriasis, falsely called seborrhœa sicca, is then due to a mixed infection of the spore of Malassez and an actively multiplying staphylococcus.

This condition must not be confounded with a possible coexistence of Sabouraud's *seborrhée grasse microbacillaire*, in which all three conditions may be differentiated by the presence of the spore of Malassez, the staphylococcus polymorph of Cedercreutz, and the microbacillus of oily seborrhœa. The first two organisms principally at the surface in the scales, the third exclusively found in the hair follicle.

Psoriasis, and especially the borderland types of *seborrhéides* and eczema seborrhoicum psoriasisiformis of Unna, he differentiates anatomically as psoriasis whenever *exocytosis* is found—that is to say, whenever groups of effused leucocytes are found in multiple points near the surface.

The differentiation from eczema and the impetiginization of pityriasis capitis is more difficult; but in the steatoid form of pityriasis capitis the exoserosis forms histological subcorneal vesicles, or a serous infiltration of the scale, while in eczema the vesicle or œdema forms deep in the rete Malpighi and only arrives at the superficial epidermic layers secondarily. In impetigo and steatoid pityriasis the vesicle formation is from the beginning superficial and subcorneal.

All this is beautifully clear in theory, but we must render the Scotch verdict of not proven. The crux of the argument still rests upon the explanation of the spore of Malassez which, Piffard claims, is a degeneration product of epidermic cells and can be artificially produced by certain manipulations of scrapings from the toe-nails.

REVIEW of DERMATOLOGY AND SYPHILIS

Under the Charge of JOHN T. BOWEN, M.D.

BENIGN NEW GROWTHS.

By OLIVER S. ORMSBY, M.D., Chicago.

A Case of Cutaneous Neuro-fibromatosis, in Which Newly-formed Nerve-fibers Were Found in the Tumors. ARTHUR WHITFIELD. (*Lancet*, London, October 31st, 1903, p. 1230.)

The patient, a man aged fifty years, had a large number of characteristic tumors, varying in size from that of a pea to that of a walnut, occupying the regions of the face, scalp, trunk, and the mucous membranes of the cheek and side of the tongue. No pigmented patches were present. Histologically, the author found the tumor consisted of a feebly fibrillated matrix, embedded in which were a large number of spindle and branched cells. In sections, suitably stained, numerous nerve-fibers could be demonstrated, numbers of them showing a beaded appearance, which, according to Purves Stewart, was characteristic of newly-developing nerve-fibers, from which the author concluded that there was a new formation of nerve-fibers.

Report of a Case of Fibroma-molluscum. H. G. ANTHONY. (*Jour. A. M. A.*, Vol. 40, No. 24, 1903, p. 1630.)

This is a clinical and histological study of a case of fibroma-molluscum of ten years' duration, in a young woman aged twenty-five years. Tumors numbering about one hundred, and varying in size up to a hazelnut, were irregularly distributed over the entire body. The older tumors presented a gelatinous, teat-like appearance. Lentiginous pigmentation occupied the regions of the chest, abdomen, back, arms, upper part of forearms and thighs. In addition, two large plaques of pigmentation were noted. Histologically, the author concludes that the tumor-mass was composed of an embryonic myxo-fibrous connective tissue. He lays stress on the importance of pigmentation in these cases, believing it to be an essential symptom. The author believes with others that molluscum fibrosum is a developmental defect.

A Case of Neuro-fibroma of the Skin and Large Nerve-trunks, in Which There Developed a Large Spindle-celled Sarcoma Beneath the Body of the Scapula. H. W. AUSTIN. (*Med. Record*, October 31st, 1903.)

The patient, a man aged forty-six years, presented a large number of tumors (several hundred) of the skin, varying in size from that of a

pea to that of a walnut, which had been developing for ten years. An egg-sized fibrous tumor of the musculo-spiral nerve was excised. Another smaller one, involving the anterior thoracic, was later removed. Still later, a large tumor, which proved to be a spindle-celled sarcoma, was removed from beneath the scapula. Fifty-one days after the removal of the sarcoma, the patient died. At the autopsy, a new tumor was found occupying the site of the one removed, with a section of the musculo-spiral nerve, and many other tumors were found on various nerves. A microscopic study was made and the author believed that the fibrous tumors of the nerve-trunks and those of the nerve periphery (cutaneous tumors) belonged to the same pathological process.

A Case of Neuro-fibromatosis, Sarcoma, and Death. W. G. RICHARDSON, F.R.C.S., England. (*Lancet*, London, December 3d, 1904.)

This is a brief clinical report of a case of neuro-fibroma associated with sarcoma. The patient, a man aged fifty years, had innumerable tumors, varying from lentil to filbert-size, which had existed all his life, but which had become much worse during the last thirty years. One tumor, situated at the outer side of the right elbow, which had always been larger than the others, had, during the last few months, grown larger, heavier, and firmer. It was pendulous and the size of a child's head, smooth, oval, elastic, and firm. The microscopic diagnosis of this tumor is given as a small, spindle-shaped-celled sarcoma.

A Case of Multiple Neuro-fibromatosis. H. LITTLEWOOD, W. H. MAXWELL and S. C. SCOTT. (*Lancet*, London, April 8th, 1905, p. 921.)

The patient, a man aged forty-seven years, had multiple swellings of the body and limbs, which began at the age of thirty. The tumors were subcutaneous, intramuscular, elastic, and painless to the touch. The patient suffered pain in the left arm and leg. A large number of variously sized tumors were found, *post-mortem*, scattered throughout the body. The largest, 20x15 centimetres, was located in the pelvis and attached to the concavity of the sacrum by a pedicle. This histologically proved to be a sarcoma. The other tumors were beginning to undergo sarcomatous transformation. The authors believe that these tumors originate in the endoneurium. New nerve fibrils were not demonstrated in the tumors.

A Case of Simple Fibroma (Fibro-neuroma) of the Nerves of the Lower Extremities, With Diffuse Enlargement of the Sciatics, Complicating Sarcoma, and Metastases in the Lungs. JOHN H. LARKIN. (*Jour. Med. Research*, Vol. 9, p. 217, 1903.)

The conclusions in this case are the following: That it is a case of neuro-fibromatosis of the nerves, with bilateral tumor growth on the

sciatics, and is an example of the class described by Garrè, in which there exists a congenital predisposition for the nerves to undergo diffuse sclerosis, to sarcomatous neoplasia, and the formation of metastases.

Neuro-fibroma Cutis. A. BRETON. (*Monatsh. f. Derm.*, No. 8, 1903, p. 420.)

The author reports a typical case of Von Recklinghausen's disease. Two years after the development of the disorder the patient died of hæmorrhage of the brain, at the age of forty-eight. The autopsy revealed the presence of sarcomatous tissue at the site of both suprarenals. All lymph glands were swollen and hardened. The hypophysis cerebri was the size of a large bean, and the sella turcica was filled with lymphoid tissue.

A Unique Case of Molluscum Fibrosum of the Rectum in a Patient With Typical Skin Lesions. A. B. COOKE. (*Am. Med.*, November 21st, 1903, p. 818.)

The patient, a man aged forty-three years, presented a large number of the usual tumors upon the skin. No mention is made of pigmented lesions. The author found a large number of tumors in the rectum, sixty of which he removed. He submitted these, with some from the skin, to Dr. Louis Leroy, of Vanderbilt University, who reported the rectal tumors as identical in structure with molluscum fibrosum. No special staining for nerve fibrils is mentioned.

A Case of Molluscum Fibrosum. GEORGE B. SOMERS. (*Occidental Med. Times*, January, 1904, p. 19.)

The case is of interest on account of the enormous size of the tumor. It occurred in a young woman, aged twenty-four, and had existed since birth. It was a pendulous tumor, involving the left side of the vulva and left buttock and hanging nearly to the knee. The surface was described as covered with a slightly elevated naevus pigmentosus, brown in color, and with a rough, rugose surface. Numerous distended sebaceous glands were present, which gave a disagreeable odor.

Generalized Neuro-fibromatosis, With a Large Tumor, Weighing 5 Kilos and 600 Grammes, and 602 Smaller Tumors. P. PIOLETT. (*Hospital Gazette*, 1902, No. 137.)

This is a record of a remarkable case of Von Recklinghausen's disease. One of the tumors, situated in the gluteal region, weighed 5 kilos and 600 grammes, and there were 602 smaller tumors disseminated over the whole body. No nodules could be felt along the nerves. Some trophic changes were present, hyperidrosis of the hands, bluish-red swell-

ing of the same, etc. Much pigmentation was present. The large tumor was removed surgically, death following from septicæmia. The author advises caution in the removal of such tumors.

A Case of Neuro-fibromatosis (Von Recklinghausen's Disease), With Paralysis and Muscular Atrophy of Arms and Legs. H. M. THOMAS. (*Johns Hopkins Hosp. Bull.*, August, 1903.)

The patient, a man aged fifty-one years, had cutaneous tumors present since early childhood, which had increased extensively during the past five years, appearing last on the face. Numerous irregularly scattered tumors occupied the regions of the face, arms, trunk, and limbs, and varied in size from pin-head to cherry-sized. They were both pedunculated and sessile. Numbers of pigmented areas were present. There were no demonstrable tumors on the nerve trunks. Here and there bluish areas occurred in the skin. Marked paralytic symptoms were present, and it is the author's opinion that neuro-fibroma involved the anterior roots of the cord, especially those composing the *cauda equina*, the cervical region only recently becoming involved.

A Noteworthy Case of Neuro-fibromatosis. C. ADRIAN. (*Wien. klin. Wochenschr.*, 1902, No. 32. Strasburg.)

This is the record of a case of neuro-fibroma occurring in a woman aged fifty-six. The tumors had been present since birth. Sarcomatous degeneration had occurred in the dermal tumors. There were miliary fibromata along the gastro-intestinal tract, and also on the periosteum of the right tibia.

Fibroma Molluscum. SEDERHOLM. (*Monatsh. f. Derm.*, 1904, p. 182.)

At a meeting of the Dermatological Society in Stockholm, October 29th, 1903, Sederholm demonstrated a patient having on the shoulders, breast, and arms a number of small, soft fibromata. The patient was twenty-three years of age, and the lesions had existed since childhood, but had become more numerous on the shoulders and arms during the past summer. At the same time an uncontrollable hiccough developed. The diagnosis was given as fibroma molluscum.

Neuro-fibroma. ADAM V. KARWOWSKI. (*Monatsh. f. Derm.*, Vol. 35, p. 409.)

The patient, a man aged thirty-four, has five healthy children. Has had disease of the heart for ten years. His mother died of heart disease. Since childhood his body has been covered with blackish spots, which developed about the sixth year; also some swellings, which cause no inconvenience except upon pressure. The following points were elicited

upon examination: All over the body were scattered yellowish-brown spots like ephilides, and over the chest and extremities were coffee-colored pigmentations. In addition also there were a number of small nodules, some flat, some prominent, pea to bean-sized; some bluish, others brown or transparent, a few being the same color as the surrounding skin. A few of the tumors were the size of a hazel-nut to a walnut, each consisting of two or more nodules. Lesions were found also on the scalp. The tumors were soft and inelastic. There was no involvement of the nerve trunks. The urine was normal. The histological picture showed the following: Pigmented cells were all over the field; epidermis thin, otherwise not changed; cutis slightly stained, and consisting of connective-tissue rich in cells, particularly spindle, partly oval, with round nuclei. The main part of the tumors surrounded hair follicles, the tumor being sharply defined from the balance of the tissue.

False or Cicatricial Keloid. A. RAVOGLI. (*Jour. A. M. A.*, July 30th, 1904, p. 297.)

This is a clinical and histological study of keloid occurring on the back of a colored man, aged thirty-eight, in a cicatrix following a burn. The histological picture is described and the absence of elastin discussed, and the author believes that this latter is of great etiological importance in the production of keloid, and states that he has seen nothing in his study of keloid suggesting its microbic origin. He thinks the classification into true and false keloid should be maintained. Under X-rays the tumors flattened, became harder, the pain and tenderness disappeared, and the result of treatment was rather satisfactory.

[Relative to family, racial, or hereditary influence, considered from the standpoint of etiology, the following cases, which occurred in the practice of Drs. Hyde and Montgomery, are of interest:

Mrs. N., aged forty-two, developed a keloid in her eighth year in a vaccination scar. Seventeen years later a keloid developed on the chest, also one on the back and hip. These latter gradually grew for ten years, until when first seen they were very large and painful. A few years after this patient developed her first keloid, her sister developed a keloid also in a vaccination scar. At present the patient has a son, aged nine years, who developed a keloid in a vaccination scar eight months after vaccination.]

New Treatment of Cicatrices. HENRY R. VARNEY, M.D. (*International Jour. of Surg.*, New York, October, 1903. p. 309.)

The author reports that he treated many cases of variola with X-rays with gratifying results, two weeks after discharge from the contagious hospital, and believes that should treatment be instituted early, as soon as as the pustules begin to heal, less disfiguration would result.

Therapeutic Use of X-ray. W. A. PUSEY. (*Jour. A. M. A.*, May 13th, 1905, p. 1496.)

The author reports the successful treatment of several keloids and scars with radiotherapy.

In this connection, the reviewer records eleven cases of true and false or cicatricial keloids treated with radiotherapy, which occurred in the practice of Drs. Hyde and Montgomery, to whom he is indebted for the privilege. These lesions occurred in persons ranging from seven to forty-two years of age, had existed from eight months to thirty-four years, and were situated chiefly on the chest, face, neck, arms, and hands. They varied in size from the smallest to six inches in diameter. Each lesion is very much improved; eight have flattened nearly to the level of the surrounding skin and show no evidence of activity. Each has received from sixteen to eighty treatments with X-rays.

Keloid of the Lobule of the Ear, of Infectious Origin, Recurring after Surgical Operation, and Cured With Bi-polar Electrolysis.
L. PERRIN. (*Ann. d. Dermat. et d. Syph.*, Vol. 34, 1903.)

The author describes a case of keloid of what he terms infectious origin, due to an unclean instrument in piercing the lobule of the ear. In the second ear only a small keloidal scar developed. The keloid was cured with bi-polar electrolysis, after recurrence following surgical extirpation.

Keloid Developed after a Secondary Perifollicular Syphiloderm.
LENGLET and MANTOUX. (*Ann. d. Derm. et. de Syph.*, 1903, Vol. 34, p. 416.)

This case presents the following points: Male, twenty-one years of age, and the subject of syphilis. The keloids developed over regions occupied by the specific lesions, immediately following the latter, without intervening ulceration and without any visible cicatrix having been formed. In this connection, Darier mentions a similar case reported by Lefranc, in which latter case keloids developed as an immediate result of a papillary syphilide. Continuing the discussion, Hallopeau says he does not believe in the infectious origin of keloid. Lenglet gives the following points in favor of the parasitic origin of keloids: Their uniform recurrence; their selection of special situations in the body; the presence of giant-cells, in which may be the parasite; and positive inoculation, as reported by Darier.

DISEASES OF THE HAIR AND NAILS.

By JAY F. SCHAMBERG, M.D., Philadelphia.

Alopecia Areata, a Form of Ringworm. JONATHAN HUTCHINSON.
(*Polyclinic*, July, 1904.)

Jonathan Hutchinson reaffirms his views on the nature of alopecia areata in the following language:

"You will bear me witness that I spare no opportunity of endeavoring to convince you that alopecia areata is a phase of true ringworm; in other words, that *tinea decalvans* and *tinea tonsurans* are transmutable. In some instances the *decalvans* form is in itself contagious (school prevalence has been observed); in others the grown up person exposed to the contagion of common ringworm in a child develops alopecia areata, but in the large majority of cases this latter is a sequel in adults of ringworm from which they have suffered in childhood. When it begins on the chin or cheeks, it is probably usually contracted at the barber's, but when on the back of the head we may plausibly suspect contagion from resting the head on the high back of an easy chair.

"Those who discredit my creed in this matter, allege that in their experience, only a small minority of their alopecia patients admit having had ringworm in childhood. My own statistics would show that at least three-fourths have had it. Much depends upon the amount of pains which we have taken in the collection of our facts. If you accept the first reply of your patient to the question, 'Did you ever have ringworm in childhood?' you will certainly find that but few answer in the affirmative. The result will, however, be very different if you ask the patient to make inquiries at home, and think the matter over, and answer the questions at his next visit. You must please note that all the risks to error are on the negative side. Those who remember having ringworms are none of them in error, whilst it is not improbable that a very considerable proportion of those who deny it are so."

Sabouraud's Method of Ringworm Treatment. J. L. BUNCH. (*Lancet*, February 18th, 1905.)

Bunch, after personally observing for several months Sabouraud's X-ray treatment of ringworm cases, speaks in high terms of its efficacy. By the radiotherapeutic method the average duration of the treatment of ringworm is three and one-half months, as compared with eighteen months before the adoption of this method. Its safety may be appreciated when it is stated that Sabouraud has had only six cases of X-ray dermatitis in 2,000 séances, and these happened before the present mode of estimating the quantity of the X-rays was adopted.

The technique is as follows: To cure a patch of ringworm, it should

be exposed at a distance of 15 centimetres from the Crookes-Villars tube, the tube having a resistance corresponding to the fourth division of the radio-chromometer of Benoist, until the quantity of X-rays generated amounts to four and a half unities of Holz knecht's scale. By adhering to this technique it is claimed that a depilation pure and simple can be effected from a single exposure without any danger of a burn.

Sabouraud formerly used Holz knecht's pastilles, the duration of the treatment being determined by the degree of color change effected in these, as compared with a standard scale. Owing to the considerable cost of the pastilles, Sabouraud has adopted the much cheaper expedient of exposing paper covered with an emulsion of platino-cyanide of barium, which can be employed several times. The paper changes tint when exposed to the rays, and when the tint corresponding to five unities H (a water colored copy is used for comparison), is reached, the séance is concluded. The duration of the treatment is about half an hour.

A scalp treated in this way shows no immediate result. In about seven days a mild erythema is noticed, and about the fifteenth day, the hair over the exposed area begins to fall out. The hairs fall out because of the influence of the rays on the hair papillæ, the function of which is paralyzed for a time.

The X-rays do not kill the ringworm fungus, but the latter is extruded with the diseased hairs and the new hairs which grow in (commonly about ten weeks after the X-ray exposure) are usually healthy and uncontaminated. The growth of the hair is slow and complete, restoration requiring about two months from the beginning of regrowth.

Bunch regards radiotherapy as a much more efficient agent than parasiticide applications. No antiseptic penetrates the hair follicle to a greater depth than one millimetre and yet the hair of a child is implanted in the skin up to a depth of four millimetres.

On Two Cases of Periodically Recurring Falling of Hair. Dr. LEO CARO. (*Dermat. Centralb.*, May, 1904.)

The writer observed periodic falling of the hair in a boy and a girl, brother and sister, whose parents were in good health and blessed with excellent hair growth. The boy, ten years of age, was an imbecile and confined in an institution for feeble-minded children. His body development was good, and his health normal. The antero-posterior diameter of the head was somewhat flattened. When first seen, the boy had a head of thick dark-blonde hair, which was soft and showed no evidence of breaking or splitting. The scalp was normal. When seen on a later occasion the head presented a striking change. The hair had fallen out with the exception of a crown-like fringe around the free border, and this fringe was lost in the course of a few days. The attendants at the institution stated that the fall of hair had begun four days before, and

had suddenly developed overnight so that on the following morning the whole of the back of the head was bald. The baldness lasted fourteen days, after which the hair began to return, and was fully restored in five or six weeks. The hair fall was not preceded by any illness or any observable change in the child's condition. On interrogation of the parents, the fact was elicited that this hair fall had been observed at home at intervals of three or four months.

Fourteen weeks after the regeneration of the hair, the writer noticed that the hair became lighter in color and coarser. Within three days evidence of hair fall again began, and in the course of five days, nearly every vestige of the hair had disappeared. The restoration of the hair this time occupied a period of two months. This periodic loss of hair has continued. In 1901 and 1902 the hair fell out four times, in 1903 only three times, and in 1904 up to May, once.

The sister, a beautiful girl, seven years of age, suffered in a similar manner from hair fall. This child was well developed physically and mentally, but had a curious habit of repeating words that pleased her some ten or twenty times, and bringing them into conversation without sense.

This girl, in a manner similar to her brother, lost her hair twice in 1902, and once in 1903. The loss of hair was likewise preceded by changes in the color and constitution of the hair.

The author regards the falling of the hair in these patients as a trophoneurosis. In both a disturbance of the cervical sympathetic nerves is suggested. The idiot body has a weakened nervous system, and the girl evidently had some disturbance of the upper part of the cervical nerves in connection with the hypoglossus. The experimental section of the cervical nerves in cats by Max Joseph and the production of alopecia is referred to.

INFLAMMATIONS.

By H. P. TOWLE, M.D., Boston.

Erythema Nodosum. ABT. (*J. A. M. A.*, Nov. 12, '04, p. 1454.)

After reviewing the literature Abt reports three cases. Case 1. Boy, seven, five days ago had fever and constitutional symptoms. The organs were negative except that the spleen was somewhat enlarged. The eruption was situated on the anterior surfaces of both legs and on the extensor surface of the right arm. The temperature was increased for a few days and new lesions appeared. The urine showed a trace of albumin with a few hyaline casts. Widal test negative. Leucocytes 11000. Case 2. Boy, five and one-half, had been ill three or four days. One year ago had had measles and lobar pneumonia when two years old. At time of examination temperature was 101°. Heart, lungs and abdomen were negative. The eruption declined within two or three days,

but the elevation of temperature continued ranging from 99° to 101° in the morning, and as high as 104° in the evening. The patient was restless, pulse irregular. Occasionally there was vomiting. This continued for two weeks when the boy had a convulsion, became comatose and died ten days later. The picture presented was typical of basilar or tubercular meningitis. Case 3 developed lesions ten days after a streptococcus infection of the tonsils. The temperature was 103° . The patient was drowsy, refused food and appeared severely ill. The temperature continued high, but after a week, involution of the lesions occurred and recovery ensued.

Lichen Pilaris seu Spinulosus. ADAMSON. (*Brit. J. Derm.*, xvii., 39.)

This affection occurs chiefly in children, perhaps more often in boys and is characterized by the appearance of fine filiform spines arising from the pilo-sebaceous follicles, the mouths of which are raised into small, acuminate, pale or pinkish papules and arranged in groups or patches on various parts of the limbs or trunk. According to the author, "similar cases have been described in France under the name of *acné cornée*. The term, however, is not synonymous as it includes several other diseases. Most English and American writers confuse lichen pilaris with keratosis pilaris. While the formation of spines is an essential feature of the disease, exactly similar spines may be seen rarely in lichen scrofulosorum and not infrequently in lichen planus. When spines are present in lichen scrofulosorum the diagnosis may be difficult and rests chiefly on the presence of more inflammatory papules which occasionally bear pustules and on the presence of tubercular manifestations such as enlarged glands, scrofuloderma, etc. In lichen planus there may be acuminate lesions with central follicular plugs with a tendency toward grouping into patches. On the legs especially, the lesions may increase in size and coalesce to form hypertrophic patches. These acuminate lesions may occur alone or associated with typical lesions of lichen planus. If the acuminate lesions bear horny spines, they are indistinguishable from the lesions of lichen spinulosus unless they are associated with other typical elements of lichen planus. The author quotes several cases in adults of an eruption which was typical of lichen spinulosus, but which was followed later on by unmistakable lesions of lichen planus. He, therefore, thinks that in adults the spiny papules may be regarded as undeveloped forms of the acuminate lesions of lichen planus. In children, however, there is nothing which suggests such a relationship. Among other diseases in which filiform spines may occur are mentioned pityriasis rubra pilaris, keratosis follicularis contagiosa of Brooke, keratosis pilaris and certain cases of ichthyosis. Adamson then reports the case of a boy of eight who was always delicate, of fair complexion and hair almost white. The eruption was of about twelve months'

duration. There was a spiny patch on the back of the neck, three or four patches, irregularly oval, from a shilling to a florin in size over the upper part of the shoulders behind and similar patches on the outer side of the arms and on the buttocks. These patches were made up of pale filiform spines, one projecting from each follicle so that they are closely crowded together and about one-sixteenth to one-eighth of an inch in length. The mouth of the follicle at the base of the plug is slightly raised into a pin-head-sized papule. Some are pale, others slightly red, as though mildly inflammatory. Over the arms and buttocks are also a few scattered discrete spines. A piece of tissue containing four or five spines was removed for histological examination. Under the microscope the most conspicuous feature was the plugging of the follicle by a horny mass which distended the follicle at its upper third and which extended upward for some distance beyond the epidermis. This horny mass was made up of concentric lamellæ arranged around a persisting, atrophic hair. Near the mouth of the follicle, the walls were compressed and thinned, but deeper down the walls were widened and the cells were more or less polygonal and showed prickles (acanthosis). In the cells nearest the plug cornification was irregular. Keratohyalin granules were absent. No microorganisms were found in the plugs. There was no evidence of hyaline changes. Below the plugs the follicles appeared normal. No sebaceous glands were found. The sweat glands were well developed. There was no infiltration of the corium. There was possibly a slight increase of connective tissue about the necks of the follicles and around the papillary vessels. From a histological point of view, therefore, Adamson regards the process as being non-inflammatory and wholly confined to the epidermis. It is essentially a hyperkeratosis of the follicular wall. As he found no evidence of inflammation he thinks that Unna's title, *keratosis follicularis spinulosa*, is preferable. The most probable cause of the disease is toxic, in his opinion, as there were no signs of irritation or of parasitic action.

Menstrual Urticaria. MILLER. (*N. Y. Med. Rec.*, May 13, '05.)

Dr. Miller reports the case of a girl of fifteen with regular menstruation, who has attacks of urticaria of the ordinary type, regularly seven or eight days before the period. The attack lasts about five days as a rule. During the intervening time the patient remains free.

Erythema Infectiosum. H. L. SHAW. (*Am. J. Med. Sci.*, Jan. '05, p. 16.)

The author begins his article with a historical account of the disease. Escherich, of Graz, he says, was the first to recognize the affection as a disease *sui generis*. The so-called Fourth Disease, which was described by Dukes in 1900, differs, according to Dr. Shaw, in all essential

respects from erythema infectiosum. To the latter he gives the following characteristics—it is feebly contagious, occurs chiefly in children, has very slight subjective symptoms and is characterized by a maculo-papular rash, rose-red in color and most pronounced on the cheeks, legs and outer surface of the arms. The specific agent is unknown. It occurs in epidemics, and often follows an outbreak of measles or rōtheln. None of the other exanthemata confer immunity. It occurs most often between the ages of four and twelve, although cases do occur in young adults. It affects both sexes equally, and is most prevalent in spring and summer. The incubation period lasts from six to fourteen days. The disease may begin with a slight feeling of malaise, weakness and sore throat, but in the majority of cases the first symptom noticed is the eruption. This appears on the face first. On about the second day, the body is involved, the trunk slightly, the outer surfaces of the arms and legs markedly. Last of all the hands and feet are attacked. The eruption on the face, the author says, is very characteristic. Its chief seat is on the cheeks which are symmetrically involved. The skin is rose-red, hot, swollen but not tender. The eruption is well defined, confluent and slightly elevated. The area of this confluent eruption is sharply limited by the naso-labial folds, the temples and the angles of the jaw. On the forehead and chin may occur discrete spots varying in size from a pea to a hazel nut. On the extremities the eruption is morbilliform in appearance and is paler than on the face. It is often arranged in geographical designs and affects the extensor surfaces especially. The trunk may be only slightly involved, but the buttocks are usually markedly. Unlike the eruption on the face, that on the body is not raised. The rash lasts from six to ten days and disappears leaving no trace. There is no desquamation. The lymphatic glands are not enlarged either during or after the disease. There are no constant changes in the mucous membranes. The prognosis is absolutely favorable. No complications or sequelæ have ever been observed. There is no coryza, cough or conjunctivitis. Urine is normal. In the differential diagnosis, the author considers rōtheln, for which it is most likely to be mistaken, measles, scarlet fever, erythema multiforme, drug rashes, toxic and dyspeptic erythema and the fourth disease. The disease described by Plachte as *megalerythema epidemicum* Shaw says is the same as the disease described by him.

The Epidemic Erythemata. PLACHTE. (*Deutsche Aerzte-Ztg.*, 1904, 362.)

In this article the author discusses the rubcola group, which he says may be divided into three classes, all sufficiently defined clinically. The first class comprises the type known as rōtheln, and to this alone would he apply this name. The disease is characterized by an erythematous eruption varying in size from a millet seed to a hemp seed and strongly

suggestive of measles. It is differentiated from the latter by a longer incubation period, by a prodromal stage, which is either very short or lacking entirely, by a milder and shorter course, by the absence of any fever worthy of mention, by the non-involvement of the mucous membrane and by the lack of complications.

He distinguishes from r  theln a second form which he terms scarlatinoid or false scarlet fever. He places the so-called fourth disease in this class because he thinks that, as shown by the literature, it is identical with his scarlatinoid form of rubeola. In contrast to the first, the second form resembles, not measles but scarlet fever, in that it causes a grayish white tonsillar deposit, redness of the pharynx and mouth, a strawberry tongue and a desquamation which is sometimes fine and sometimes in sheets. It differs from scarlet fever in that it occurs on the face first, that often a papular character predominates, and that it itches. Its course is always favorable, short and without sequel  . The general health is not affected. The fever declines within twenty-four hours after the appearance of the eruption. Girls are more often affected than boys.

The third class which Plachte calls *megalerythema epidemicum* is entirely distinct from the two preceding. This form, although known to a few for years, is unknown to the majority. It has been described as a local form of rubeola, as erythema infectiosum and as erythema simplex marginatum. This disease appears without marked prodromata, without involvement of the mucous membranes, without disturbance of the general health, in the form of circumscribed erythematous patches varying in size from a millet seed to the size of the palm. Sometimes the patches are sharply defined, sometimes they fade gradually into the surrounding normal skin. In rare cases the throat is reddened slightly, with a slight rise of temperature. The single patches are usually more or less raised in the center and flatten toward the periphery, vary in color from pale to intense red and remain one or two days. The duration of the general attack is five to ten days. As a rule, the disease follows a regular course, attacking the face first, then the extremities and last of all the trunk. In many cases, however, the trunk is spared. Recurrences on regions already attacked are not rare. The efflorescence is more apt to become confluent on the extremities than on the face. The disease is epidemic, occurs almost exclusively among children, and in girls more often than in boys. One attack confers immunity. Scarlatina, measles and rubeola do not confer immunity against megalerythema.

Angioneurosis, A Unique. NICHOLS. (*Medical Brief*, Dec. '04, p. 1082.)

Under this title, Nichols, of Savannah, Ga., describes a case of poisoning in a boy by the common garden plant, snow-on-the-mountain, or *euphorbia marginata*, known in South Germany as *wolfmilch*. The attack was ushered in with fever. Then wheals appeared over the whole

body with burning and itching. The mucous membrane of the mouth was irritated and red. The attack increased in intensity for twenty-four hours until the swelling became unbearable. The temperature was 102°. The pulse was quick and irregular. There was quivering of the lips and the tips of the fingers while the body was hot to the touch.

Trauma-Psoriasis. KLAVENESS. (*St. Paul Med. J.*, Dec. 1904.)

Reports a case of psoriasis coming on four to six week after vaccination. The eruption made its first appearance on the vaccinated arm near the elbow. Later on the disease became general. Klaveness believes that the vaccination was the exciting cause of the psoriasis.

Urticaria Pigmentosa in a Nursing Infant. HELLER. (*Berl. klin. Wchschr.*, 1904, xli. 681.)

Heller demonstrated a case before the Berlin Medical Society, June 8, 1904, in a three months' old infant. The eruption was first noticed when the baby was five weeks old and was diagnosed by the family physician as syphilis. Later the child was brought to Heller. At this time the skin of the entire body with the exception of the palms of the hands and the soles of the feet, was covered with peculiar pigmented areas, whose color varied from a clear yellow to a dark brown. Some of these pigmented areas were infiltrated, some were not. In addition to the pigment spots there were circumscribed flat tumors, not tender, and varying in size from a pea to a bean. On some of the infiltrated pigmented areas were pea- to bean-sized vesicles filled with a clear serous fluid. The child suddenly became uneasy during the examination and scratched. Over the scratched areas arose typical wheals and the diagnosis was settled. The child was strong and lusty and with no evidences of syphilis. The parents also were free from all taint. Heller believes that the disease has never before been *seen* so early in life, for while it is commonly referred to early infancy, the evidence has been dependent upon the history of the case.

Psoriasis, Joint Affections in. MENZEN. (*Archiv f. Derm. u. Syph.*, 1904, lxx, 230.)

Stirred by reports from various sources of an arthritis peculiar to psoriasis, Menzen searched the records of Doutrelepon's clinic at Bonn for cases. Out of a thousand cases of psoriasis he found but three which had an accompanying arthritis and two which gave a history of a preceding rheumatism. His search showed further that there were many other diseases which occurred with psoriasis much more frequently than did arthritis. The vast majority of the cases however were without any complications whatever. After analyzing his three cases of psoriasis

with arthritis he concludes that he cannot connect the arthritis with the psoriasis because he found abundant reason for the rheumatism apart from the psoriasis. He divides the authors who have reported cases into two groups, those who maintain that there is an arthritis of an especial type which is closely related to psoriasis and those who deny the existence of this peculiar affection of the joints due to psoriasis but say that there *may* be a common cause for the two diseases. Menzen's cases led him to array himself with the second group. He could discover no connection between the two diseases as each pursued its course entirely uninfluenced by the other. Although he gives his support to the second theory he could find nothing which would answer for a common cause. All three cases were entirely normal as regards the nervous system which was carefully investigated.

SYPHILIS OF THE SKIN AND MUCOUS MEMBRANES.

By WALTER C. KLOTZ, M.D., New York.

General Pathology of Syphilis and Parasyphilitic Affections. FRITZ LESSER, Berlin. (*Dermat. Zeitschr.*, 1904. September, No. 9, p. 619.)

After remarking that the usual chronological method of classification of syphilitic lesions is both unsatisfactory and unscientific, the author would add a fourth class of parasyphilitic affections, including such as follow syphilis, but which are not caused by syphilis alone, and are therefore not characteristic of syphilis, and not influenced by anti-syphilitic treatment. He would then classify all syphilitic manifestations according to the pathological changes found in the different forms of lesions. For he says the variations in these manifestations are produced simply by the progressive attenuation of the virus. Thus he believes that in the syphilitic papule including the primary lesion, the tissues are infiltrated only with cells that have emigrated from the blood vessels, presenting as proof of this argument, the mode of infiltration about the blood vessels, the moisture, the disappearance of all traces of the lesion without any tendency to formation of new connective-tissue, and the prompt reaction to mercury and potassium iodide. That later, when the virus has become more attenuated, it is only able to bring about a reaction in the tissues themselves, and that they become infiltrated with cells, derived directly from the tissue-cells, and that these lesions are characterized by the production of new connective-tissue, and subsequent necrosis. In the last form of lesion there is interstitial infiltration with the production of new connective-tissue, but without a tendency to undergo necrosis. They do not disappear under antisypilitic treatment. Their relation to syphilis is proven by the positive history and frequent coincidence with objective signs of constitutional syphilis.

They are characterized by their localization in certain organs and at certain sites of predilection or by their occurrence in several organs at the same time, and in the same individual, and at an early age. His classification would therefore be as follows:

Stage I. Infiltration and exudation (papule and macule), primary lesion.

Stage II. Proliferation, with retrograde metamorphosis: gummata.

Stage III. Proliferation without retrograde metamorphosis: interstitial processes, parasyphilitic affections.

This classification corresponds to the clinical picture and renders it easier to conceive of gradation forms, for as the author remarks several times, there is nothing characteristic of the syphilitic lesions in general or distinguishing the different forms from each other. It also satisfactorily explains the relation of the parasyphilitic affections and some of their obscure clinical features.

Unrecognized Syphilis. ANTONIO FERRARI. (*Gion. Ital. d. Mal. Ven. et d. Pelle.*, 1904, 3 p. 269.)

After calling attention to the fact that the extra-genital situation of the primary lesion frequently causes syphilis to escape the notice of the patient, or the physician, the author presents in detail the histories of four cases of urethral chancre. In each one of the four cases there was a history of previous gonorrhœal urethritis, and in each case gonococci were found on examination of the urethral secretion. He points out how easily these circumstances might have led to a wrong diagnosis, and incidentally expresses the opinion that the existing chronic urethritis played a part in the etiology of the chancre in so far as it had probably brought about a diminished power of resistance on the part of the urethral mucous membrane.

Syphilitic Leucomelanoderma. PAUTRIER. (*Rev. Prat. des. Mal. Cut. Syph. et Ven.*, iii, 1904, No. 10, Oct.)

After reviewing sixteen observations of syphilitic leucomelanoderma in literature the author calls attention to the fact that in not all of these cases does the clinical picture correspond to the description given by Fournier, and points out that the characteristic features of this condition is the production of pigmentary disturbances in the vicinity of syphilitic lesions, or the scars left by such lesions; the formation of vitiligenous plaques bordered by a zone of hyperpigmentation situated upon a portion of skin, not the site of an existing or former syphilitic lesion. That the disturbance of pigmentation is primary and independent of any eruption, and he expresses the opinion that Geny, Legrand and Marcou have confused primary dyschromia with secondary dys-

chromia, following cicatrization. The author remarks in the beginning of his paper that this affection is rare in France but common in Algeria. In view of a large number of negroes and mulattoes in American clinics his observations may be of considerable interest, as he believes that the natural color of the skin in native Algerians may lead to false deductions in determining the degree of hyperpigmentation.

ERRATUM.

Through some mistake in the arrangement of the "Notes on Leprosy" in the July number of this Journal a portion referred to as 'Suriname' was placed as if a department of the colony of the Cape of Good Hope. This should have been separately paragraphed, as 'Suriname' is geographically located on a river of the same name in Dutch Guiana.—ISADORE DYER.

BOOK REVIEWS.

Maladies du Cuir Chevelu II. Les Maladies Desquamatives. Pityriasis et Alopecies Pelliculaires. By SABOURAUD, chef du laboratoire de la Ville de Paris à l'Hôpital Saint-Louis. pp. 700, 122 illustrations. Masson et Cie., 120 Boul. St. Germain, Paris, 1904.

SABOURAUD at once disarms any criticism, which might be directed against many writers—namely that of ignoring the literature of certain countries upon the subject, by devoting two hundred and fifty pages to a consideration of the opinions of writers upon desquamative diseases from the first century to the present day. And in spite of the numerous works which have appeared upon the subject during the past twenty years, desquamative diseases are less clearly defined than at the end of the last century.

Formerly desquamative diseases centered around pityriasis capitis as a type. Now, pityriasis capitis in Germany has been incorporated by Unna under eczema seborrhoicum, which in turn has been englobed with eczema in general. In France the theory of the "seborrhéides" advanced by Brocq and Andry in a desire to save the types of eczema and psoriasis from disappearing under Unna's eczema seborrhoicum, has not aided in clearing the confusion.

In this book Sabouraud restores to pityriasis simplex its former entity and furnishes an anatomical and bacteriological criterion of its specificity. Not only does he restore it to the position given it by Willan, but makes it the "mother-disease" whence the diffuse or figured, oily or steatoid forms annexed by some to eczema, by others to seborrhœa, have been derived.

SABOURAUD compares the desquamative type of skin diseases—pityriasis—to those groups of people surrounded by powerful and unscrupulous nations who attack and annex from time to time a part of the territory of their weaker neighbor whose name they would even annihilate. Nevertheless, as frequently happens, a day arrives when the weaker nation asserts its right to existence, takes its name and appears somewhat modified by its bitter experiences but still undismayed and triumphant. So with the group of pityriasis, a neighbor of eczema, seborrhœa and psoriasis, having been conquered and annexed by them refuses to remain annexed. Taking advantage of the dispute among her conquerors as to ownership, pityriasis, under the authority of Sabouraud, has retaken her autonomy—assumed a distinct nationality under the definition of a causal

parasite—the spore of Malassez. Where this parasite is found there exists pityriasis—if not found pityriasis does not exist.

SABOURAUD distinguishes two fundamental types:

Pityriasis simplex, due to the parasite of Malassez, and pityriasis steatoid, due to the infection of a pityriasis simplex by the staphylococcus or porcelain-like culture, and already the young nation has invaded in turn the territory of its neighbors and conquered a part of the territory occupied by a new groupment of recent date,—seborrhoic eczema of Unna, or the territory recently claimed by French authors under the title of “seborrhéides.”

The description of pityriasis simplex is not difficult. When observed at its beginning, or a recurrence in an imperfectly cured case, it presents rounded scales attached to the horny layer, or thin layers lifted by the hairs, or, where scales have fallen, by adherent squamous collarettes attached by their external borders. Usually the lesions are diffuse. When these scales are examined they are found to consist of layers of horny cells devoid of nuclei with small collections, like islands, of the parasites of Malassez. Each one composed of eight to ten elements, spherical, banana, gourd or yeast-like bodies. These parasites—spores of Malassez, bottle bacilli of Unna, not capable of being grown upon any known media—are claimed by Sabouraud to be the cause of pityriasis simplex. To the objection that they are the product and not the cause of the scale he answers that such objections have been offered to the microsporon furfur in pityriasis versicolor and to the microbe of many other diseases. Its abundance in pityriasic conditions and absence in other scaly conditions, such as psoriasis, speak strongly in favor of Sabouraud's contention.

Steatoid pityriasis is much more complex. In the scalp these lesions present scales that are thick and greasy, pasty, or even muddy. If these scales are acted upon by dissolvents of fat—such as benzine, xylol, or ether—the oily matter is removed leaving the scales unaffected.

SABOURAUD demonstrates that in the histology of these scale-crusts ovoidal blocks of coagulated serum are found between beds of horny cells and that a small number of migrated leucocytes are also present. In the horny layer above these serous blocks are found masses of staphylococci—the “morococcus” of Unna—the polymorphic staphylococcus of Cedercreutz. This in conjunction with the presence of the spore of Malassez constitutes the mixed infection, and explains the different clinical picture—a superadded impetiginization of a dry scaly condition. If the scales are removed and the denuded surface examined with a low power lens minute drops of serum can be seen to exude, not from the sudoriferous ducts but through the epidermis itself.

Now as to the explanation of the greasy state. Some authors claim that the oily secretion in seborrhoic eczema comes from the sebaceous glands. To this Sabouraud answers that there is infiltration of sebum only when to the pityriasis is added his “seborrhée microbillaire.” Unna declares that the oily secretion in eczema seborrhoicum comes from the sudoriferous glands. But around the lesions, hyperidrosis does not exist; hence the moisture observed must be exuded serum. Besnier and Darier claim that the oil comes from altered epidermic cells. Some support to this claim is given by the demonstration of Ranvier that a fluid fat exists in the horny cells.

SABOURAUD claims that osmic acid does not reveal the presence of fat in the interstices between the epidermic cells in steatoid pityriasis, and that in the absence of an oily seborrhœa the apparent oiliness does not come from sebaceous or sweat glands. One might admit the existence of an oil not colorable by osmic acid. This he offers as an hypothesis.

We will not follow here, for lack of space, the evolution of the different forms of pityriasis in the child, adolescent, woman, man, nor the differentiation from neighboring types, such as furfuraceous impetigo, oily seborrhœa,

psoriasis, eczema, etc.; nor enter into the difficulties brought up by the question of the "seborrhéides," the "teigne amiantacée" of Alibert, the undetermined circinate efflorescences, or the pityriasis rosea of Gibert, but merely say that Sabouraud's book is a worthy contribution to dermatological literature and should be read by all interested in the subject. The facts presented must be disproved by histological and bacteriological studies before one attacks his very logical conclusions. In any case the moroccus of Unna is completely discredited as a cause of eczema. Whatever the future may reveal regarding eczema and psoriasis the primitive vesicle of the first and the leucocytic collections in the latter are, to our present means of research, free from microörganisms.

A. D. M.

IKONOGRAPHIA DERMATOLOGICA.

As some of our readers know, a new atlas of illustrations of the skin diseases is to be published under the direction of two distinguished dermatologists, Prof. Neisser, of Breslau, and Prof. Jacobi, of Freiburg. The illustrations are to be exclusively reproductions on paper of models of cases, like those of some modern works on dermatology, but on a larger scale. As the prospectus below indicates, all American dermatologists are invited to contribute models of rare cases with descriptions. It is hoped that they will give it their support and subscriptions.

J. C. W.

IKONOGRAPHIA DERMATOLOGICA.

Die Herren Mitherausgeber bitten wir, bei der Einsendung von Beiträgen folgende Punkte tunlichst berücksichtigen zu wollen:

Von den zu veröffentlichenden Fällen ist *an meine Adresse eine Moulage* einzusenden, unter gleichzeitiger Angabe, ob die Aufnahme von vorn oder von der Seite (von welcher) gemacht werden soll; evtl. ist es empfehlenswert, eine kleine einfache Skizze beizufügen. *Nur in Ausnahmefällen* könnte an Stelle der Moulagen eine *sehr gut kolorierte photographische Aufnahme* in halber Lebensgrösse verwandt werden. Doch muss sich die Redaktion vorbehalten, die betreffenden Photographien auf ihre Brauchbarkeit zu prüfen.

Für jeden Fall steht *eine* Tafel (20 x 27 cm.) zur Verfügung.

Die *Reproduktion* erfolgt jeweils in *halber natürlicher Grösse*; von *kleinen Moulagen* können *zwei* auf *einer* *Tafel* vereinigt werden.

Den *Text* bitten wir im allgemeinen *möglichst kurz* zu fassen; derselbe soll hauptsächlich die Krankengeschichte des betreffenden Falles und Epikrise bringen und nicht mehr als 2-4 Druckseiten im Format der Tafel einnehmen.

Falls nötig, kann im Text eine schwarze (evtl. mikroskopische) Abbildung gebracht werden.—*Die Redaktion der Ikonographia dermatologica* gez. E. JACOBI, Freiburg i. B.

MISCELLANY.

The St. Louis Skin and Cancer Hospital.—On July 1, the St. Louis Skin and Cancer Hospital opened its doors for the reception of patients. This institution, situated on the South East Corner of Jefferson and St. Charles Streets, consists of a completely equipped hospital of forty beds and an out-patient or dispensary service.

As the title indicates, only skin and cancerous diseases will be treated. The institution is founded upon the research idea for cancer and allied types of malignant diseases.

A pathologist, who will devote all of his time to the needs of the hospital, has been appointed, and he will conduct such scientific investigations as the opportunities of the hospital and clinic will permit. The medical staff of the institution will also, especially, direct their efforts to scientific endeavor.

A training school for nurses, partaking of the character of a post-graduate school, has been established in connection with the hospital. Daily clinics for out-patients will be held. The institution is to be free of charge to all patients enjoying its benefits.

Inoperable and incurable cancer cases, as well as the operable ones, will be admitted to the hospital; the Society hopes, in the near future, to have a home, situated somewhere in the suburbs of the city, for the former cases.

The following medical staff has been appointed:

Dr. G. Baumgarten, Dr. N. B. Carson, Dr. J. R. Clemens, Dr. M. F. Engman, Dr. A. E. Ewing, Dr. E. Burnett, Dr. W. E. Fischel, Dr. Frank R. Fry, Dr. George Gellhorn, Dr. John Green, Dr. John B. Keber, Dr. F. J. Lutz, Dr. Guthrie McConnell, Dr. H. G. Mudd, Dr. Greenfield Sluder, Dr. J. B. Shapleigh, Dr. Ellsworth Smith, Jr., Dr. Justin Steer, Dr. Fred Taussig.

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DERMATITIS HERPETIFORMIS IN CHILDREN.

By JOHN T. BOWEN, M.D., Boston.

IN a paper read before the American Dermatological Association in Washington in June, 1900, and later in a communication to the JOURNAL OF CUTANEOUS AND GENITO-URINARY DISEASES, September, 1901, I reported five and six cases, respectively, of bullous dermatitis following vaccination and resembling dermatitis herpetiformis. These cases had been observed in Boston between 1895 and 1900. At that time there was a very great increase in the number of people vaccinated, owing to the prevalence of smallpox; and these cases were reported as *following* vaccination in view of the fact that no absolute proof could be obtained that they were *caused* by the vaccination. It was also stated at the time that although these cases resembled dermatitis herpetiformis in many respects, the classification of bullous dermatoses was still indefinite, and it was advisable to exercise the utmost caution lest we enlarge the limits of dermatitis herpetiformis until it might become as indefinite and unscientific a term as the old conception of pemphigus.

Taken as a whole, the character of these cases following vaccination was purely bullous and vesicular. There was usually a marked grouping and certain places of predilection were constantly seen, notably about the mouth, ears and nose, ankles, wrists, and genitals. In several of the cases an erythematous eruption was present at times, and in Case 2 a papillomatous condition, one that has, it was remarked, been noted in other cases of bullous dermatitis. Another point of difference from our usual conception of dermatitis herpetiformis was the almost complete lack of itching and sensitiveness of the skin.

Careful enquiries were naturally made as to the source of the

lymph, and the method of vaccination, although it was not possible, in all of the cases, to obtain this information. In all of the cases where it was possible to find the vaccinator, he proved to be a reliable practitioner who had obtained his lymph from a trustworthy source. In one of the cases a brother of the patient vaccinated at the same time and by the same operator had developed no symptoms. At the time these cases were reported it was, as has been said, assumed that the impurity of the vaccine could be eliminated, and the theory that a toxine developed by the vaccination in certain predisposed individuals is responsible for the eruption was regarded as not improbable.

Within the last three years, and somewhat before that, a number of other cases of recurrent bullous eruptions in children have come under my notice, a few of which followed vaccination. Others, which, in my opinion, were of the same clinical variety, had no connection with vaccination. Before describing and discussing these later cases, I will give a brief résumé of my first six cases following vaccination. These cases were described in full in the article above quoted.

CASES FOLLOWING VACCINATION, 1 TO 6.

CASE 1. A boy, of four years, developed two weeks after vaccination a vesicular and bullous eruption, with some tendency to grouping, especially marked and confluent on the face about the nose and mouth, on the backs of the hands and wrists and on the dorsal surface of the feet. The other portions of the extremities were moderately affected, while there were but a few scattered lesions on the trunk. There were also purulent lesions intermingled with the vesicles and bullæ. There was moderate pruritus. These manifestations kept recurring constantly for ten or eleven months, during which time there was one interval of complete freedom from the eruption for three weeks. When last heard from, there had been no recurrence for three and a half years.

CASE 2. A girl of seven exhibited two weeks after vaccination a vesicular and bullous eruption, which often became purulent. There was a marked tendency to grouping, and the parts most prominently affected were much the same as in Case 1, viz.: the face, and especially the skin about the eyes, nose and mouth, the forearms and hands, and the lower legs and dorsal surface of the feet. The trunk was practically free. In places where the lesions were most numerous, there was a papillomatous condition of the skin below.

There was no pruritus. There was also, in this case, an affection of the heart and an intercurrent disturbance of the kidneys. Up to the time when the patient was lost sight of these lesions had been constantly appearing for between seven and eight months.

CASE 3. In this case the eruption appeared in a boy of ten one week after vaccination. It consisted of vesicles and bullae appearing in some instances upon a preceding erythematous area situated generally upon the head, and especially upon and about the ears, and in its course developed upon the extensor surfaces of the forearms and legs. There were only a few scattered lesions upon the trunk. There was very moderate pruritus. The eruption continued to appear constantly from four to five months, when it disappeared; and when the patient was last heard from there had been complete exemption for over three months, with the exception of slight itching.

CASE 4. A mulatto boy of five was observed from time to time for a period of fifteen months, during which period he was hardly ever free from the eruption, and it had not disappeared when he was last seen. There was very little pruritus. The eruption was characterized by vesicles and bullae of varying sizes, which arose either from apparently normal skin, or, in some places and at some times, developed upon previously existing erythematous patches and circles. At one stage of the affection these erythematous areas did not, in all instances, eventuate in bullae. At times there was a tendency to grouping about the mouth and ears, and, as a rule, the extensor aspects of wrists and ankles were prominently affected. There was eosinophilia as demonstrated at two different periods, as well as a marked increase of eosinophiles in the serum from the bullae. Attempts at cultures failed signally. The eruption was said to have begun one month after vaccination.

CASE 5. Boy of six, vaccinated December, 1889. Less than two weeks after vaccination a bullous eruption appeared that has constantly persisted to some extent up to the present time, May, 1901. There have been intervals of improvement, followed by periods of intense outbreaks. There has been no pruritus nor exceptional sensitiveness of the skin. At times the whole body has been pretty thickly covered; at other times the lesions on the trunk have cleared up, leaving the forearms and wrists, together with the legs and feet the parts most prominently affected with clustered lesions. The eruption at times became purulent.

CASE 6. A boy of six developed, four weeks after vaccination, a purely vesicular and bullous eruption, most marked upon the wrists

forearms and ankles. For five months the lesions continued to appear in considerable numbers. Nine months after the beginning of the affection, it was learned that there were but a few lesions present and the condition was greatly improved. There had not, however, during the nine months been a period when the skin was wholly free from the eruption.

When these cases were first described, my hesitancy in grouping them under the title of dermatitis herpetiformis was based on the following reasons: While the recurrent course of these cases and their vesicular and bullous character is quite consistent with our conception of dermatitis herpetiformis, it seemed to me that there was a greater uniformity in this group of cases than we should expect to find in so many outbreaks in a number of cases of this disease. The localization was quite characteristic in almost all of the cases, namely, the parts about the mouth and nose and backs of the wrists and ankles. In many of these cases the recurrences for months and months are confined to these localities. Another point of dissimilarity was the general lack of subjective symptoms, these features being almost lacking in these cases. As is well known, most writers consider this feature one of the cardinal signs of dermatitis herpetiformis. In Case 1 there was moderate pruritus. Case 2 was a very exaggerated case, was carefully observed in the hospital for nearly four months; there was absolutely no pruritus and the subjective symptoms were no more severe than was to be expected when so large a territory of skin is affected. Case 3 was also observed in the hospital, and while pruritus was not entirely absent, it was very slight. In Case 4 the multiformity was more apparent, erythematous lesions occurring especially after the vesicular and bullous manifestations had in great part disappeared. Case 5 was an extraordinary one in its course and persistency. It was under the closest observation for a long time, and in spite of the extent and severity of the outbreaks there was no itching and no more physical discomfort than would be expected from the amount of skin involved. In Case 6, also watched in the hospital, there was no itching or other subjective symptom.

It is clear, therefore, that if these cases are to be included within the bounds of dermatitis herpetiformis, they present points of dissimilarity, especially in the absence, or very slight prominence of the phenomena of pain and itching; *paraesthesia*, as this symptom complex has been called by Unna. With regard, also, to the multiformity, while that exists in several of the cases, it could not be said to be a prominent feature. The lesions were essentially bullous and vesicular,

with a marked tendency to grouping. Another reason for my hesitancy in including these cases definitely in the limits of dermatitis herpetiformis was the fact that they had all followed vaccination, suggesting the possibility of a common etiology. In my previous article, mention is made of two cases of dermatitis herpetiformis following vaccination reported by Dyer.¹ In one of these cases, not unlike in symptoms those that I have reported, it was noted that there was not much pruritus. Also in a case reported by Pusey as dermatitis herpetiformis following vaccination, it is noted that there was no real itching, although a good deal of tingling, burning pain was present.

Since the above cases were published, I have met with a number of cases with very similar symptoms, both in children who had been more or less recently vaccinated, and in others where this was not the case. These cases prove to me very definitely that if vaccination is causative in some instances, it is not by any means the sole cause.

Of the cases which follow, several have been imperfectly studied, as the patients were soon lost sight of; yet their appearance and history were sufficiently marked to secure them a very definite place in this group. Others were seen almost daily in the hospital and kept under careful observation.

CASE 7. Arthur S., seven years of age, was seen in Charlestown and brought to Boston, on February 2, 1902. He was born in America, and so far as could be determined had had no other illness of importance. He had been vaccinated two months previous to this. According to the account the arm did not heal well, and two weeks after vaccination bullae began to form about the site of vaccination, which later extended to the face and finally affected the body. When seen, the eruption was of a purely vesicular and bullous character. Upon the head there were clusters of vesicles and bullae, especially marked about the nose and mouth. The arms were considerably affected and the special seat of the eruption was the back of the hands and wrists. In this region some of the bullae had attained a very large size, reaching a diameter of an inch and a half in some cases. The upper part of the trunk was but slightly affected, but there was again a very marked outbreak about the genital region and the buttocks, so that lying down was very painful and difficult. There was no itching, and the patient's condition was good. The child was

¹ *St. Louis Medical Gazette*, 1898

sent to the Children's Hospital, where he remained until February 25.

When he entered the Children's Hospital, it was recorded that his mother was dead; two other children were alive and well. No previous illness except measles and whooping cough. The chest, lungs and heart were normal. The glands in the left axilla were enlarged and tender. Abdomen soft and tympanitic. Spleen or liver not felt. Inguinal glands slightly enlarged. Knee jerk present. Temperature 101. Hæmoglobin, 80 per cent.; leucocytes, 19,600; urine, clear, acid, specific gravity 1030, albumin absent, sugar absent.

February 7: Continues to have crops of bullae; no subjective symptoms, condition the same.

February 16: Of late there have been very few new areas and the old ones are healing well. Polymorphonuclear leucocytes, 75 per cent.; eosinophiles, 15 per cent.; myelocytes, 5 per cent.; eosinophilic myelocytes, 2 per cent.; lymphocytes, large and small, 29 per cent.

February 20: Face is much better; a few new bullae appear every day much smaller than the original ones and more evenly distributed. None are pustular now.

February 23: Still new bullae appear every day, not to any extent grouped. Leucocytes, 16,600.

February 24: Few new vesicles; general condition good; temperature normal most of the time; on the fifteenth there was a rise to 101.8, and again to 101 on the twentieth. At no time has there been any itching. Discharged relieved.

After leaving the Children's Hospital, he was admitted first to the Carney Hospital, and afterwards to the Long Island Hospital. On July 30 the lesions had all disappeared, and the boy was apparently in excellent health. In August there was a reappearance of the eruption, and he was again admitted to the Long Island Hospital. At this time the lesions were situated, generally, about the thighs and forearms, where there were thickly scattered areas, excoriated and moist, together with vesicles and bullae. He remained in the hospital, subject to frequent relapses until March 30, 1903, when he was discharged, well. On March 25, 1905, he was admitted to the skin ward of the Massachusetts General Hospital. The skin had been perfectly well up to a few days previous to this, when an outbreak had occurred, confined to the genital region, the penis, scrotum, and the inner surfaces of the thighs, which were covered with groups of vesicles and bullae, with marked erythematous base. These continued to appear in gradually decreasing crops until April 19, when the skin was perfectly clear. The child was circumcised at this time,

as the prepuce was very long, and it was thought probable that this isolated outbreak was due to this fact. Soon after the circumcision there was another outbreak in the same position, which soon cleared up, however, and the patient was discharged well, on the 10th of June.

CASE 8. Stanley W., three years old, born in Massachusetts, living in Cambridge, was seen on September 18, 1901, at the Massachusetts General Hospital. It was impossible to get a complete history as he was not accompanied by his parents. All that could be ascertained was that he had been vaccinated some time during the last few months; immediately after vaccination the present eruption appeared and had been recurring in crops ever since. He presented, when seen, vesicles and bullae in groups, situated especially about the lower arms and lower legs, where the lesions were in places confluent. The abdomen and chest were almost free from the eruption, and there was very little upon the head, with the exception of a large patch upon the chin. There are practically no subjective symptoms, only a moderate amount of pruritus. The eruption evidently begins as a small vesicle, without inflammatory base, which either remains as such or increases to the size of a bulla. It was impossible to trace this patient afterwards.

CASE 9. Stephen McD., age ten, was seen at the Massachusetts General Hospital on August 7, 1893. History was that the affection had begun four months before on the feet and ankles, and since then has spread upward to knees and arms. It has come in successive outbreaks, and three weeks ago it had nearly disappeared. Soon after it reappeared, and at present is more extensive than it has yet been. The eruption is purely vesicular and bullous, the primary lesion being evidently a small vesicle increasing in size to a diameter of often two or three centimeters, or remaining as a vesicle. Confluent areas are seen where the roof of the lesions has broken and the affection has become crusted. There is a marked tendency to grouping. The face, arms, hands and feet are the parts most affected. Appetite poor. Considerable pruritus. This patient was seen again on the 22d of August, when it is recorded that the eruption had improved greatly under borated dressings. He was then lost sight of.

CASE 10. October 5, 1901, a boy of six was seen at the Massachusetts General Hospital. He had been vaccinated in September, 1900. In March, 1901, according to the history, the present eruption made its appearance. At the outset it was much more extended than at present, covering a very large portion of the body. At present

the head is almost free, with the exception of a few grouped vesicular and crusting lesions of the forehead. In this place the eruption has a distinctly herpetic appearance. The backs of the hands and wrists are very much affected, being covered with vesicular and small bullous lesions, resting on an uninfamed base. The trunk is very slightly affected, showing only a few small bullae here and there. There are several vesicles and bullae on the penis. On the legs and feet are a considerable number of pure vesicles and bullae, in places grouped and confluent. The pruritus was said to be considerable. General health seems to be good. Since the outbreak first made its appearance there have been successive attacks, and at times he has been practically free from the eruption, when a new outbreak would appear. Unfortunately it was impossible to follow this case further, so that its study is incomplete.

CASE 11. May 25, 1903, Eliza S., three years of age, was brought to the Massachusetts General Hospital. She was born in Boston of Irish parents. Her mother has had eight other children, all of whom are well; no previous illness except "congestion of the lungs." Eight weeks ago the present affection began, appearing first about the genitals in the form of vesicles and bullae, which had been coming and going ever since. When seen, the face was somewhat affected, but not markedly so. The lesions were of a vesicular and bullous type, not especially grouped, and mingled with these lesions there was an annular erythema which was apparently produced by the disappearance of the vesicles and bullae. There were vesicles and bullae scattered irregularly over the arms, none upon the wrists, without marked grouping. There were large and small bullae and vesicles on the abdomen, but here the grouping and herpetiform character were well defined. On the left side of the abdomen there was one very large area of vesicles, four inches or more in diameter; about the vulva there were numerous groups of vesicles and bullae. The legs were somewhat affected, but here the grouping was not marked. There was very little itching. General health had been good. Examination of the blood and the serum from the vesicles revealed no eosinophilia.

CASE 12. Catherine H., six years of age, was admitted to the Children's Hospital on September 2, 1897. There was nothing of importance in the family history. Three weeks previous to entrance a number of small vesicles made their appearance on the outer aspect of the left thigh, which soon coalesced and formed patches an inch and a half in diameter. Soon after the eruption spread to other parts

of the body. On admission, examination of her lungs and heart was negative, spleen could just be felt below the ribs; otherwise abdominal examination was negative. The urine was normal. The temperature was slightly raised on admission, but soon dropped to the normal, where it remained, with the exception of a rise to 103 the day after an injection of antitoxine.

The skin eruption was most marked on the lower extremities and was of a purely vesicular type. The vesicles showed a marked grouping and a tendency to form large circular and circinate patches resolving in the centre, and new vesicles appearing constantly at the periphery. Besides these groups there were a few isolated vesicles. These circinate lesions were also quite marked about the thighs and genitals. There were a few lesions upon the forearms.

September 4: The lesions are healing, but a few new vesicles and bullae have appeared on the right thigh. It is noted that the child's temperament is a peculiar one. Her moods rapidly change and many of her actions are those of a much younger child.

September 26: During the last week there have been a number of relapses, fresh areas have appeared on the thighs and lower legs and new vesicles have made their appearance at the site of the old lesions. There is no itching or other subjective symptom, and except for the discomfort from the eruption the child is very well.

October 7: Condition of the skin is much better. A few fresh lesions appear, however, each day.

October 12: Examination of the urine shows it to be normal, specific gravity 1023, no sugar, no albumin.

November 6: There has been a steady improvement until the last three days when the eruption began to spread. The whole area that had previously been affected is hyperaemic and covered with an eruption similar to that observed on entrance.

November 14: There has been no change since November 6. Vesicles have continued to appear over the same region, maintaining always the same circinate configuration, with in many cases an annular form, new vesicles appearing at the periphery while the central lesions undergo involution. There is no itching and no other subjective symptom. The child was discharged at the request of the parents.

On March 1, 1905, it was learned from the child's mother that the child was free from the eruption about three months after leaving the hospital, and it did not recur until the spring of 1904. At that time, the mother wrote, that it seemed to her worse than before and

there was a large amount of serous exudation. The attack continued until the month of August, presumably having a duration of three or four months, when it cleared up and the child has since remained free.

CASE 13. Israel L., a boy of five and a half years old, born of Jewish parents in Boston. This patient was first seen at the Children's Hospital on March 6, 1904. Nothing of importance could be learned from the family history. The child had been well until four weeks previously, when, without known cause, bullae had appeared on the face, which came and went until one week previously when they began to appear on other parts of the body. On entrance into the hospital, the temperature was 101 degrees, but quickly fell to normal, and it was thought that the rise was very likely due to excitement. When seen, the face, and especially the regions about the mouth and nose and eyes, were covered with small bullae, which in places had coalesced to form large areas, oozing, and bereft of epidermis in an irregular manner. There was no eruption on the anterior surface of the trunk. On the back there were a few bullae; but the most prominent symptom was a very generalized erythema of circinate and in many places annular type, the individual patches being rather small, perhaps one-third of an inch in diameter. The color of this erythema was a rather bright red. In a few of the circinate lesions there was a slight deepening of color at the centre. The arms were much affected, especially the parts about the elbows and wrists. In this location were many large and small bullae, some of them hæmorrhagic. These bullae do not arise from an erythematous base but from an apparently normal skin. The buttocks and groins, scrotum and penis are very markedly covered with bullae and open surfaces where the bullae have broken. The thighs present few bullae but are covered with numerous macules of erythema similar to those described upon the back. About the knees, again, were large numbers of bullae, which, as well as those in the places previously described, showed a moderate tendency to grouping. Upon the ankles and backs of the feet were numerous large and often hæmorrhagic bullae. Some of these bullae were nearly an inch in diameter, and were raised above the surface of the skin three-quarters of an inch; none of these bullae presented an angular outline. There was little, if any, itching. On the roof of the mouth a small bulla was present. The boy was well nourished, with good muscular and adipose development. He had been vaccinated at the age of three months, and not subsequently.

On October 3, 1904, he was admitted to the skin ward of the Massachusetts General Hospital. At this time, his face, especially about the mouth, nose and eyes, was covered with vesicles, bullae and crusts, situated on a somewhat erythematous base with the skin somewhat thickened. The trunk was entirely free; on the lower part of the arms and about the wrists there is a large patch of bullae and vesicles intermingled with crusts. Similar patches are present on the backs of the hands. There is a large patch over the scrotum and pubes, perineum, and inner surface of the thighs. The thighs, again, are free, while the lower legs from below the knees down to the ankles are covered with crusts and vesicles. There is practically no itching. Physical examination negative; urine negative. Examination of blood showed:

	PER CENT
Polymorphonuclear leucocytes	60
Lymphocytes	37
Eosinophiles	3
Haemoglobin	85
Whites, 9,000.	

On October 17, it is noted that the eruption has changed somewhat. Instead of vesicles about the ankles and legs, there are now large bullae whose contents are somewhat cloudy. Temperature at this time rose to 103.2, pulse, 138. Careful physical examination at this time revealed nothing abnormal. The bullae were opened and the skin dressed antiseptically, with the result that in a few days the temperature fell to normal. Physical examination, as well as that of the urine, continued to be negative. The eruption continued to appear over the sites previously affected during the remainder of the autumn. At times it would seem to be on the point of clearing up, when a fresh outbreak would set in. On the 1st of January, 1905, it is recorded that the scalp was entirely free, but the entire face covered with vesicles, bullae and crusts, seated upon an erythematous base. The ears were also affected. The trunk, as before, was almost entirely free, with the exception of a very few scaling patches, probably the site of former lesions. The forearms and the backs of both hands were covered with numerous vesicles and bullae in various stages of development. The palms were free. There was considerable eruption about the penis and scrotum, as well as in the groins. The lower legs and the backs of the feet were affected in a manner similar to the arms.

The child is still, June, 1905, in the skin ward of the hospital. From the time of the last note until the present time, there have been repeated outbreaks of vesicles and bullae followed by crusts, on the parts about the nose, mouth, ears, backs of the hands and wrists, backs of the feet and ankles, and about the genitals; never on any other part of the body, where the skin is quite normal. At times the eruption has almost disappeared except for a resulting erythema on most of the places. The face, however, has never been clear.

CASE 14. Charles L., three years of age, born in Massachusetts, was admitted to the Massachusetts General Hospital on May 27, 1904. History showed that at two months of age he had a diarrhœa lasting several weeks, and four months later a second attack. At eighteen months of age the first affection of the skin occurred, appearing, according to the report of the mother, as small water blisters on the face, which soon spread over the whole body. The eruption has been through several phases, but the child has never been wholly well. At times the lesions were entirely vesicular, at other times more or less pustular, and again the affection would be nearly well when another outbreak would occur. When admitted to the hospital the scalp was covered with crusting lesions, which were rather moist and showed the remains of vesicles. The face was sparsely covered with erythematous, vesicular, and crusting lesions. On the left side was a large bulla nearly one inch in its long diameter. On the trunk there was an annular erythema, composed of very small lesions with a bright red border and darker centre. At the border of the lesions there were some signs of vesiculation. The posterior surface of the trunk was affected similarly. On the limbs were the same annular and gyrate figures especially marked on the extensor surfaces of the wrists and hands, where there was also some thickening of the skin. Physical examination was negative.

On June 9, this annular and gyrate erythema of small type persisted, accompanied here and there by a few small vesicles which arose usually at the site of the erythema. The blood count showed:

	PER CENT
Polymorphonuclear leucocytes	50
Lymphocytes	43.5
Eosinophiles	6.5

Soon after this the eruption assumed a more vesicular type, that is to say, larger numbers of the vesicles and bullae appeared upon

the erythematous rings. The areas of erythema also still continued to appear. On October 10, he was discharged relieved. At this time the vesicular element had entirely disappeared, and he presented simply a bright red multiform erythema over the trunk and extremities. Temperature had been normal since entrance. There had been little itching, as a rule, and the only subjective symptoms noted were a fretfulness and peevishness.

CASE 15. Florence D., three years of age, born in Massachusetts of Irish parents. Brought to the Massachusetts General Hospital on December 2, 1903. The first cutaneous appearances had been noted four days previously in the form of small vesicles on the thighs. There had been no subjective symptoms except that the child had appeared rather fussy. The eruption rapidly spread, and on December 7, the patient was admitted to the ward for cutaneous diseases. Physical examination was negative. The eruption was especially marked on the face about the chin, around the eyes and ears, and was of a bullous type. The bullæ were seated on an erythematous base. It was also marked upon the thighs, front and back, the upper half of the lower legs, and about the abdomen. The bullæ were both discreet and confluent; there was a moderate tendency to grouping. On entrance, the temperature was 102, which quickly fell to 100 and 101, becoming normal after a few days. The pulse was slightly accelerated. December 9, it is noted that the largest patches are over the lower abdomen and around the genitals. Bullæ have continued to appear in and about the region of the old lesions. There are no lesions in the mouth. Urine acid, sp. gr. 1018, urea 1.26 per cent. Blood count on December 2:

	PER CENT
Polymorphonuclear leucocytes	37
Lymphocytes	62
Eosinophiles	1
Mast-cells	0

On December 9:

	PER CENT
Polymorphonuclear leucocytes	49.5
Lymphocytes	45.5
Eosinophiles	4.5
Mast-cells .....	.5

On December 16, blood count showed:

	PER CENT
Polymorphonuclear leucocytes	60.5
Lymphocytes	31.5
Eosinophiles	6.5
Mast-cells	1
Myelocytes	1

On the 23d, it is noted that there is an eruption of bright red, moderate-sized papules across the back from shoulder to shoulder, which practically disappeared in six days. This was accompanied by a slight elevation of the temperature. During this time the child's condition had been good except that the sleep was disturbed and considerable nervousness was exhibited. The itching does not appear to have been intense. The child's temperament seems variable and at times moody.

On the 29th, blood count showed:

	PER CENT
Polymorphonuclear leucocytes	52.5
Lymphocytes	33.5
Eosinophiles	14
White count, 25,400.	

On January 1, 1904, the lesions were most prominent about the mouth and chin, and the lower part of the cheeks, consisting of vesicles and bullae, closely aggregated and grouped on an erythematous base. The skin was infiltrated and reddened in places where the bullae had been present. There were some annular lesions scattered over the body. The trunk was very slightly affected, a few bullae, isolated and in groups, showing on the anterior surface. The backs of the hands and wrists were covered with masses of vesicles and bullae, together with crusts, more or less grouped. The thighs were moderately affected. Most of the appearances were confined to the lower legs and ankles, together with the backs of the feet, where there were very numerous and confluent areas of large and small bullae. The white count was 21,500.

	PER CENT
Polymorphonuclear leucocytes	60
Lymphocytes	19.5
Eosinophiles	20.5

DERMATITIS HERPETIFORMIS IN CHILDREN. 395

On February 9, the white count was 30,000.

	PER CENT
Polymorphonuclear leucocytes	65.5
Lymphocytes	29
Eosinophiles	5.5

From this time until June 25, there was a gradual improvement, although there were outbreaks from time to time. On the whole, they became less frequent and less extended. Repeated physical examination revealed nothing abnormal. The predilection points continued to be the same, that is to say, the regions about the mouth, nose, and eyes, backs of the hands, wrists and ankles, and about the genitals. Various remedies, external and internal, were tried, but it could not be asserted that any one remedy was of special value.

On September 3, 1904, the patient was readmitted to the hospital with a fresh attack. Since leaving the hospital, there had been no special change until quite recently, when the affection had returned in about the same positions and of about the same character as when she was first admitted to the hospital.

On September 12, blood count showed leucocytes, 10,000.

	PER CENT
Polymorphonuclear leucocytes	64
Lymphocytes	31
Eosinophiles	5

On October 19, there was a new outbreak, very numerous lesions appearing about the ankles and on the lower third of both legs, about the mouth, eyes and forehead. From this time until the 12th of December, vesicles and bullae continued to appear although in much less amount, so that on the whole the condition was much better. At this time she was discharged from the hospital, but has continued to present herself at the out-patient department.

I have here described nine additional cases of recurrent bullous dermatitis in children varying in age from three to ten years. It can hardly be doubted, I think, that all of these cases belong in the same class, both the six cases that I previously reported and the nine additional cases; certainly no possible doubt can be entertained of those cases which have been observed and carefully studied in the hospital over a long period, that is to say, Cases 7, 12, 13, 14, and 15. The remaining four cases can also, in my opinion, be safely

included in the same category, although the opportunity for studying their course and development was much more limited.

Of the nine additional cases (Cases 7 to 15), it will be observed that vaccination had preceded the outbreak in but three, and that in two of these cases the interval of time between the vaccination and the first outbreak was so long as to render a causative association extremely doubtful. In Case 7, according to the history, two months had elapsed; and in Case 10, six months. In the other cases it could be positively shown that there had been no such association or coincidence. Cases 7, 13, and 15 were observed over a long period, almost daily, at the hospital, and there is no question in my mind of the identity of the clinical type with that of the cases following vaccination.

As has been said above, at the time the first six cases were published, it seemed to me advisable, in view of their association with vaccination and of certain variations in clinical type, to leave the question of their classification somewhat open, although as I stated, they most resembled dermatitis herpetiformis. The points of variance in these first six cases were, first, the greater uniformity than is usually seen in dermatitis herpetiformis. What can be said as to this point in the additional cases here described? Case 7 presented a bullous and vesicular eruption without sign of multiformity. At the time the Case 8 was seen, there was the same lack of multiformity, and this was also true of Cases 9 and 10. Case 11 showed a certain amount of multiformity, there being an annular eruption combined with the vesicles and bullae. Case 12 was observed in the hospital for some time, but it always preserved its vesicular and bullous type. Case 13, still under observation at the hospital, has been observed for over a year. When first seen, there was upon the back and thighs a very general erythema of circinate and often annular type. On other parts of the body the eruption was of a vesicular and bullous type. Later on the multiform element disappeared and the eruption was entirely vesicular and bullous. In Case 14, also, there was a certain amount of multiformity: in fact, this case exhibited this feature more than any of the others, erythematous areas and rings continuing to complicate the vesicular eruption. Case 15 exhibited very little multiformity, although a certain amount of erythema and, in one instance, a papular eruption was observed.

Taken as a whole, therefore, the multiformity in this group of fifteen cases cannot be called pronounced. The essential, striking, and almost constant clinical feature is the recurrence of more or less

grouped vesicles and bullae. The erythematous and papular conditions occurred, as has been seen, in only a few cases, and in those cases were much less pronounced than the vesicular and bullous. It may be said, therefore, that the multiformity of the eruption, while it is certainly a feature of this group of cases, cannot be accentuated to the extent that it often is in the conception of dermatitis herpetiformis.

The second point that struck me as somewhat characteristic of the first six cases described as following vaccination was the locality prominently affected, a point which had not been previously dwelt upon in the descriptions of dermatitis herpetiformis. I described the parts about the mouth and nose, the backs of the wrists and the genitals as a favorite seat for the eruptions, and observed that in many cases these were the only parts subject to recurrences for many months. Can such a localization be shown to be present in the nine cases subsequently observed? In Cases 7, 8, 9 and 10 these regions were distinctly affected, while the trunk was almost entirely free, with the exception of the lower abdomen in the neighborhood of the genitals. In Case 11, which it will be remembered could not be carefully studied, this feature could not be observed, and this was also true in Case 14. It will be noted that these cases in which the predilection points were not affected were the two in which the multiform element was most pronounced. In Case 12, the eruption was most marked on the lower extremities; the genitals were much affected, but the upper extremities and face were nearly free. In Cases 13 and 15, again, the predilection points were prominently affected.

The third feature which impressed me at the time of the publication of the six cases following vaccination was the general lack of subjective symptoms. Of the nine cases that are added, it may be said that this feature was also lacking to a great extent. In most of these cases that were observed at the hospital it can be confidently asserted that there was absolutely no itching. In a few there was a moderate pruritus; but the general opinion of the physicians and nurses who watched and cared for these patients over a considerable length of time in the hospital was that the itching was never a pronounced feature. In several of the cases observed outside the hospital, the evidence of the itching was simply the affirmation of the parents, which is not of nearly so much value as a careful observation of the case.

Taking these cases as a whole, subjective symptoms, other than itching, were very slightly marked. In Case 7, when first seen there

was so great a surface affected, especially the parts about the buttocks and genitals, that lying down was very painful and caused much discomfort. At a later period, when the eruption was more localized, there was little or no complaint of the burning, pricking, and tingling sensations so commonly associated with dermatitis herpetiformis. There was a moderate rise of temperature on several occasions.

In Case 13, there was, at the time of acute outbreak, a considerable amount of discomfort complained of and the child was restless and fretful. It was not considered by his attendants, however, that he showed, as a whole, any prominent subjective symptoms. Naturally, when a considerable surface is affected with any exudative dermatitis, there is much discomfort, and the amount of suffering expressed will vary according to the temperament of the individual.

Cases 14 and 15, which were carefully observed, were also remarkably free from subjective symptoms. Both of these children were of a peculiar temperament, having periods of great irritability and sullen moods, especially Case 15; but these periods were not found to coincide with the acme of the outbreaks.

In several of the cases that were in the ward at the Massachusetts General Hospital, repeated attempts at culture from the serum and the blood were made, but the results were negative. The examinations of the blood showed, as has been seen, the usual eosinophilia,—little more, so far as present interpretation of the analysis permits.

The urine was practically normal, a diminution in urea occurring in several of the cases, as has been before observed in cases of dermatitis herpetiformis.

An examination of a small bulla excised from Case 13 gave much the same histological picture as was found in Case 5, which has been previously reported.

Examination of vesicle from back of ankle of Case 13:

Zenker's fluid, methylene blue and eosin, serial sections. The vesicle was situated in the rete Malpighii; the roof was formed by the intact horny layer and several layers of the rete, the cells of the latter being flattened and elongated; at the sides of the lesion the rete is increased in thickness and the epithelial cells have become distorted, a vacuolation of the cytoplasm occurring about the nucleus in many instances. The cavity of the vesicle was filled with fibrin, polymorphonuclear leucocytes, and with a considerable number of eosinophiles and degenerated epithelial cells that take the acid stain. Apparently the vesicle has extended just to the line of the corium,

the floor of the lesion being formed by the papillae, which are elongated and widened. The corium is extremely oedematous, filled with dilated lymph vessels and spaces. There is also a dilatation of the blood vessels, which, in the upper papillary layer, are filled with masses of red corpuscles. In the upper papillary layers, and especially about the vessels, there are masses of cell infiltration consisting of eosinophile cells and lymphoid cells, with a certain amount of increase in the connective tissue cells. The large numbers of eosinophile cells offer a very striking picture. No micro-organisms could be detected. It will be noted that the situation of this vesicle was in the rete and not in the corium, as has been described by Unna, Gilchrist, and others, in dermatitis herpetiformis. Unfortunately, further histological examinations were not made on account of the difficulty of persuading the parents to allow the necessary excisions.

Of late, several writers have interested themselves in this matter of dermatitis herpetiformis in children. Among the latest articles is one by Meynet and Péhut, of Lyons.² The article is apropos of a personal case in a child of eight, and to it are appended twenty-one cases taken from the literature, not including any of the cases here reported.

Unna, as is well known, in an interesting and logical article on Dühring's diseases³ described a form of dermatitis herpetiformis in children that he had met with, under the name of *Hydroa puerorum*, and this form has been frequently referred to in passing by writers on dermatitis herpetiformis, as if it were simply the common form of the disease as it occurs in children. To my mind this is not the case, and Unna's series of cases should be, at least for the present, set aside as a distinct type. In one of the cases, three older brothers of the patient had been similarly affected. Unna's grounds for separating these cases from the ordinary form of dermatitis herpetiformis are the following: (1) Its beginning in the earliest years of life. (2) The recurrences throughout childhood. (3) The acme of the attacks in the summer. (4) The small amount of multiformity, the eruption consisting almost entirely of papular erythema without bullae or vesicles. (5) The greater prominence of pain and burning as contrasted with itching. (6) The acuteness of the individual attacks. (7) The occurrence of constitutional symptoms before the outbreak of the eruption. (8) The gradual spontaneous diminution in extent and acuteness of the attacks to-

²*Ann. de Derm et de Syph.*, Dec., 1903.

³*Monatsh. f. Prakt. Derm.*, Dec., 1889.

wards the period of puberty. (9) The disappearance of the attacks at the time of puberty. (10) Possibly its limitation to the male sex.

Despite the conclusions arrived at by Meynet and Péhut, I think Unna has shown sufficient grounds for dividing his cases into a special group or subdivision of dermatitis herpetiformis. Thilliez⁴ is the only one, so far as I know, who has observed cases similar to those of Unna. He publishes three cases, two brothers and a sister, in which the affection began, apparently, in early infancy, during the first months of life. In a personal communication, Dr. Unna writes me that he has seen, he believes, two or three more cases since his first publication, whereas he has met with no cases of the ordinary form of dermatitis herpetiformis in children. A further reason for dividing these cases off as a separate group is the fact that in two of the three instances reported more than one member of the family was affected.

On the other hand, notwithstanding certain points of difference, the fifteen cases that I have described, must, for the present at least, be classified as dermatitis herpetiformis of the adult type. The classification of bullous dermatoses, however, is not yet sharply defined, and it is fair to suppose that in the future further subdivisions of dermatitis herpetiformis will be necessary.

Gottheil⁵ describes two cases of dermatitis herpetiformis in children, one in a girl of nine, which had appeared when she was four years old, and was accompanied by great itching. The eruption was always vesicular in the beginning, sometimes becoming pustular and bullous. The arms, hands and face were especially affected. His second case was in a boy of twelve, who had had it for thirteen months. It was of the bullous type and always began on or about the genitals. Itching was not much complained of, although there were numerous excoriations. Gottheil thinks that dermatitis herpetiformis is much more common in children than has been supposed.

The conclusions that I wish to draw from the study of these fifteen cases are the following:

First.—In a considerable number of cases of dermatitis herpetiformis as it occurs in children, the element of multiformity is wholly lacking, the disease showing itself by the recurrence of groups of vesicles and bullae without other lesions.

Second.—In a majority of cases the subjective symptoms, such

⁴*These de Paris.*, 1895.

⁵*Archives of Pediatrics*, 1901, p. 306.

as itching, burning, pain and tingling are either absent or very slightly accentuated, so that, it seems to me, this feature cannot be considered one of the four cardinal symptoms of the disease in children.

Third.—Vaccination may, in certain cases, be the exciting cause of the eruption, not in the sense of an infection, but as one of probably many agents which may produce this train of symptoms in certain people.

Fourth.—Certain regions of the body are especially affected by the eruption, viz.: the parts about the nose, mouth, and eyes, the backs of the hands and wrists, the backs of the ankles and feet, and the genital region.

Fifth.—Unna's *Hydroa puerorum* is to be placed by itself, either as a distinct variety of dermatitis herpetiformis, or as an independent affection.

It cannot be claimed that these observations do much to clear up the etiology of dermatitis herpetiformis, except in so far as they add weight to the generally accepted view that this is a disease of the nerves of the skin instigated and controlled probably by the central nervous system and factors that act upon that. I agree with Unna that the most important and essential of all the symptoms of dermatitis herpetiformis is its recurrence. This is true of the disease as it occurs at all ages. Without that feature it is not, in my opinion, possible to make a diagnosis or to exclude other dermatoses. Next to this feature of recurrence, I should place the herpetiformity of the eruption, the tendency to appear as groups of vesicles. The general well-being of the patients would come next, while multiformity and subjective sensations of pain and itching are frequent but not necessary accompaniments.

THE TREATMENT OF ELEPHANTIASIS—A NOTE.

By H. C. CURL, P. A. SURGEON, U. S. NAVY,

Sup't. Colon Hospital, Medical Department Isthmian Canal Commission.

THE question of the etiology of elephantiasis and its relation to its causative factor, the filaria, has been so thoroughly described by Manson and others that its review is scarcely needed. When, however, the various forms of treatment are considered, a decided difference of opinion is at once noticed. All agree that elephantiasis of the scrotum should be removed by incision and the genital organs covered in by a plastic operation; or, if there is not enough available tissue, these organs should be covered by a protective dressing, and, after the formation of granulations, skin-grafting should be resorted to. On the other hand, the removal of varicose groin glands is advised by some but condemned by others. The advocates of the operation claim that, not infrequently, the adult filaria, usually present in small numbers, sometimes singly, is discovered in the glands and the local condition much improved by its removal. The opponents say that the danger lies in the formation of a fistula through which lymph will be discharged in an annoying and even dangerous amount, and that its closure is very difficult and often requires months.

For elephantiasis of the lower extremities, when the growth becomes large enough to be a burden, or when extensive ulceration occurs, amputation is usually done. To avoid such radical measures, attempts have recently been made to modify or check the progress of the disease by other means. There are a few authenticated cases in which a careful dissection of the varicose femoral glands have resulted in the discovery of the adult filaria, and its removal has in each case permitted the lymphatic system to so readjust itself that the changes in the skin, subcutaneous tissues and lymphatics of the leg returned to a normal, or almost normal, condition. This, however, is an unusual result, and the most careful examinations, both at operations and at autopsies, usually fail to reveal the living adult or the embryos. Such have been our experiences at Colon Hospital.

Next: Ligation of the arteries was used, but—except for temporary benefit—was found useless. Nerve section has seemed to give decided improvement in a few cases, but the general discomfort

PLATE XXXV—To Illustrate Dr. H. C. Curl's Article.
The Treatment of Elephantiasis—A Note.



PLATE XXXVI—To Illustrate Dr. H. C. Curl's Article.
Report of a Case of Keratosis Follicularis.



and serious secondary results (trophic and sensory) seem not to justify us in going farther with this method.

One other method remains, and, while it is not claimed that permanent results always obtain, there does follow a most encouraging diminution in the size of the leg, the patient is able to walk, and amputation is delayed for many months and sometimes years. The examination of a well-developed elephantiasis of the leg impresses one with the apparent impossibility of sterilizing the skin so that any surgical procedure could with safety be undertaken. As a matter of fact, however, very good results can usually be obtained, and, in most of those cases operated upon here, we had primary union.

The procedure referred to is that of removing wedge-shaped strips of skin and subcutaneous tissue from time to time, as the tissues become lax and permit of such removal. In the case shown in the photographs there were seven strips of tissue removed, two transversely and five longitudinally; the decreased size of the leg is shown, and still further decrease has occurred. The patient has been discharged, and the only treatment to be continued will be the use of an oil on the skin and a snug bandage to the knee. At best, the treatment of this unfortunate class of cases is not encouraging, and they are a long-to-be-remembered part of the impression carried away by travelers from tropical countries.

REPORT OF A CASE OF KERATOSIS FOLLICULARIS.

By H. C. CURL, P. A. SURGEON, U. S. NAVY,

Sup't. Colon Hospital, Medical Department Isthmian Canal Commission.

BECAUSE of its rarity the following case is considered worth reporting:

The patient is a colored man about twenty-eight years of age, with previous good health, and with negative family history.

He first noticed the disease on the sides of the nose about eleven months ago, and its progress has, since then, been continuous up to the time of his admission to the hospital.

His general health was good until three months ago, when he began to complain of symptoms of gastritis, but from which he has almost recovered. He was unable to obtain work because of his appearance, and on that account he presented himself, rather than from any disability due to the disease.

The distribution is on face and hands, the hands being but slightly affected.

On the face the lesions were best developed in a strip across the forehead above the eyebrows, over the nose, and a portion of the cheeks near the nose, the upper and lower lips and front of the chin.

In the nasal region the type was not "blurred" by softening or suppuration, and in this area the surface was studded with hard, horny "plugs" one-sixteenth to one-eighth inch in diameter, projecting, in many instances, one-eighth inch from the follicles.

Upon removing these, there remained deep, crater-like depressions, red and gaping, and these were so closely placed that, when a large number of plugs were removed by the needle or by expression, the nose looked honeycombed.

Over the cheeks, the upper and lower lips and the chin, the "plugs" were of the same size and distribution, but were softened, and the entire surface was covered with a crust "covering in" a foul-smelling layer of broken-down epithelium and pus.

Over other parts of the face, the ears and upper neck, the disease was not as far advanced, and the plugs were smaller, firmer, and there was no softening or crusting.

A brown pigmentation extends over the area most involved.

Treatment.—Salicylic acid ointment so softened the horny plugs that they could readily be removed. The entire face was "curetted" with a blunt spoon passed over the surface slowly with considerable pressure, and an antiseptic dusting powder applied. Patient is much improved, and wishes to leave the hospital.

Photographs were taken before treatment began.

SUCCESSFUL TREATMENT OF AN EXTENSIVE CASE OF LUPUS VULGARIS WITH THE X-RAYS.

By JAY F. SCHAMBERG, M.D., Philadelphia.

From the Laboratory of Radio and Actinotherapy of the Philadelphia Polyclinic.

MISS D. W., aet. thirty-one. Parents are living and in fair health. Paternal grandmother died of consumption. Several uncles and aunts of the parent's mother died of tuberculosis either of the lungs or bowels.

Patient had the usual diseases of childhood; at the age of seventeen she had a severe attack of measles, and for three years after this was in very poor health.

In February, 1898, patient noticed a small, pea-sized swelling on the right side of the face below the zygoma, which was freely movable beneath the skin. This was excised by the attending physician and packed with iodoform gauze for about five months. About this time a young woman, who was said to be suffering from consumption, visited the patient and occupied the same bed with her for several weeks. In November of 1898 the wound which was unhealed was excised with "a portion of the parotid gland." At the same time a small patch which had appeared on the ala of the nose was curetted. The disease, despite this, spread on the nose and a second curetting was performed. Following this there was temporary benefit, but the disease remained unchecked. At about this time the mucous membrane of the nose became involved, and a focus of disease appeared upon the right cheek. Later the patient had nervous prostration, and during this period treatment was neglected. Subsequently the left cheek became involved and the upper lip and right ear showed evidence of disease.

The patient's weight and strength fluctuated from time to time. In 1891 the patient weighed 140 pounds, and in 1899 she weighed 98 pounds.

In 1903 a gland became enlarged on the left side of the neck and later underwent suppuration with necrosis of the overlying skin.

The patient states that she is subject to a cough every spring

which lasts a few months but disappears after a sojourn in the country, during which time she invariably gains weight. The sputum was examined on at least one occasion, and tubercle bacilli were absent. No physical signs of tuberculosis of the lungs have ever been present.

When the patient first came under observation considerable areas of the cheeks, nose, lip and ear were involved. The tip of the nose was covered with adherent crusting beneath which was evident extensive tissue destruction. Infiltrated crusted patches were present at the root of the nose and in both malar regions from which points the diseased areas extended downwards. The entire upper lip was encased in a tenaciously adherent crust produced by exudation from subjacent ulceration. The right side of the face was the seat of an extensive infiltrated patch.

On the left side of the neck just anterior to the angle of the jaw was a fistulous opening connecting with a suppurating gland; the surrounding skin was reddened and thickened. The right ear, both anteriorly and posteriorly, was thickened and beset with lupus nodules.

The patient was, in the beginning, subjected to Finsen light in the Philadelphia Polyclinic laboratories, the London Hospital lamp being employed; this procedure failing to give satisfactory results, Röntgen ray treatment was substituted.

The first X-ray exposure was given on March 21, 1903. A medium soft tube was employed at an average distance of seven inches; the average duration of the exposure of each area was six minutes. In all, three hundred exposures were given in the course of almost two years. This does not represent three hundred sittings, as two or three separate irradiations were often given during one sitting in order to expose all of the affected areas. The treatment was interrupted from time to time for various reasons, so that it would occasionally happen that the patient would not receive any irradiations for a month or two. On several occasions a distinct erythema was produced, but the reaction never went beyond this degree. Many of the lupus nodules underwent suppuration before disappearing.

The treatments were given by Miss M. B. Kirkbride and Drs. Price and Montgomery, who have given their personal attention to the Röntgen therapy.

April 1, 1905: At the present time the great part of the previously affected area is covered with a smooth pliable scar. The



Lupus vulgaris of six years' duration.



Patient almost well. A few nodules remaining on the right ear. Several small patches of telangiectasis on the cheeks.

tip of the nose is destroyed, but the appearance of the nostrils has been much improved by removing a portion of the septum which projected beyond the alæ and which had united to an ulcerated portion of the lip about three-eighths of an inch above the vermilion border. On the right side of the face are two small red areas which contain visibly enlarged capillaries and a similar patch is present on the right cheek. These patches appear to represent telangiectases rather than actual lupus tissue, although a few small lupus nodules may be perhaps masked by the redness. The lower portion of the right ear is the only region which still exhibits the presence of undoubted lupus tissue. The lip is entirely healed, the nasal mucous membrane is reddened and sensitive to atmospheric changes, but appears to be free of actual lupus elements.

The above case is considered worthy of report because of the excellence of the cosmetic result. With the exception of the circumscribed telangiectases above referred to, the texture of the scar-tissue is fully as good as that resulting from actinotherapy. The scar-tissue is supple and soft and lacks the fibrous thickening so often seen after lupus ulcerations.

The involvement of the nasal mucous membrane and the vermilion border of the lip led to the adoption of the Röntgen treatment in this patient as the treatment of choice. The result obtained has justified the course pursued. The patient is not completely cured, but ultimate recovery is only a matter of time.

EDITORIAL.

THE CRITICAL SPIRIT VS. THE SPIRIT OF AUTHORITY IN MEDICINE.

L'histoire de la médecine est celle d'une lutte contre l'esprit d'autorité en matière scientifique.—LEREDDE.

THE guiding spirit of our esteemed contemporary, the *Revue Pratique des Maladies Cutanées, Syphilitiques et Vénériennes* is the above quotation from its title page, and we warmly approve the manner in which the editor has combated those models of medical solemnity, behind which so many errors have been entrenched.

No doubt we do need more of the critical spirit, not only on the part of medical editors, which may prevent the publication of many worthless articles, but on the part of readers and workers who should be more willing to prick the iridescent bubbles blown by conceited writers.

It is true that in physics, chemistry and the mathematical sciences the number of poor researches is small, while in medicine the number is considerable, nevertheless, in medicine opinions are in such a state of transformation that the work of a young and unknown author may be right, although his conclusions may be directly opposed to the opinion of an author much older, even preëminent. Consequently, while the medical press should combat the spirit of authority in scientific matters, it should not render itself liable to the criticism of being a self-constituted authority.

The single test of sincerity of motive should be applied to every paper submitted. Vain-glorious motives are patent enough to the discriminating reader and whatever may be the prestige of an author, or the standing of a journal, both will suffer on account of the mediocre article.

There is a great reform to be made in medical literature and the medical editor can help much more than he does. Indications point to a sharp dividing line being drawn between journals run for the advancement of medicine and those run for the benefit of advertisers.

The still higher idealism of Leredde would advocate the fullest

discussion of every article at the time of its presentation to the reader. This idea he has in a way carried out in those interesting editorials which were much more of the nature of chats or search lights to fix the attention of the reader upon certain features in the article presented. A contributor should welcome these chats as well as the invitation to readers to discuss or criticise the paper to the fullest extent compatible with sincerity of motive.

Few men are endowed with that unselfish devotion to Truth of a Pasteur; the thoroughness of work which tested every discovery in the crucible of every hostile hypothesis imaginable before affirming it in print. Most men resent as a personal affront the slightest criticism directed at their work or at their conclusions.

The dislike of exciting these fierce animosities has often allowed to go unchallenged medical errors, which owing to the eminence of the author have had an extended and prolonged acceptance until some fearless soul, repeating the experiment with different results, finally transfixes the error.

The iconoclast has never been popular among idolaters, but he has been of immense value to the cause of progress.

REVIEW of DERMATOLOGY AND SYPHILIS

Under the Charge of JOHN T. BOWEN, M.D.

BACTERIOLOGY AND PARASITOLOGY.

By A. D. MEWBORN, M.D.

Actinomycosis, the Biology of the Microorganism of. JAMES H. WRIGHT, M.D. (*Publications of the Mass. Gen'l Hosp.*, Vol. 1, No. 1, 1905.)

This essay was awarded the Samuel D. Gross Prize of the Philadelphia Academy of Sciences. The author restricts the term actinomycosis to "a suppurative process combined with granulation tissue formation, the pus of which contains the characteristic granules or 'drusen' composed of dense aggregates of branched filamentous microorganisms and of their transformation or degeneration products. In the term transformation products are included the characteristic refringent club-shaped bodies radially disposed at the periphery of the granule, for these bodies have long since been clearly shown to arise by a transformation

of the peripheral filaments. They may or may not be present at the periphery of the granule. This definition excludes those cases of so-called pseudo-tuberculosis or streptothrix or cladothrix infection referred to, for in none of the reported cases does the infecting microorganism occur in compact and characteristic aggregations as in actinomycosis."

From a study of thirteen human and one bovine cases of actinomycosis the author recommends the following procedure for the isolation of the microorganism of actinomycosis: "The granules, preferably obtained from closed lesions, are first thoroughly washed in sterile water or bouillon and then crushed and disintegrated between two sterile glass slides. If one is working with a bovine case, it is well to examine microscopically the disintegrated material after mixing it with a drop or two of bouillon under a cover-glass to see if filamentous masses are present. If they are not, or if they are very few, proceed no further, but begin again with another granule, because the granules in bovine lesions sometimes contain no living filaments at all, but may be composed entirely of degenerate structures from which no growth of the microorganism can be expected. If filaments and filamentous masses are thus found to be present in the granule, then the disintegrated products of the granule are to be transferred by means of the platinum loop to melted one per cent. dextrose agar contained in test tubes filled to a depth of seven or eight centimeters which have been cooled to about 40° C. The material is thoroughly distributed throughout the melted agar by means of the loop, and the tube then placed in the incubator. Several tubes should be thus prepared. At the same time a number of granules, after thorough washing in sterile water or bouillon, should be placed on the sides of test tubes plugged with cotton and kept at room temperature in the dark.

The sugar agar tubes inoculated as above described should be examined from day to day for the presence of the characteristic colonies in the depths of the agar. If very many colonies of contaminating bacteria have developed in the tubes, it will probably be very difficult or impossible to isolate the specific microorganism. If a good number of living filaments of the microorganism have been distributed throughout the agar, the specific colonies that develop will be very numerous in the depths of the agar, especially throughout a shallow zone five to twelve millimeters below the surface of the agar."

One of these deeply seated colonies is removed by a flattened platinum wire, washed in sterile bouillon and transplanted into melted agar. Out of a number of tubes thus treated a pure culture may be obtained. If the contaminations are great it is preferable to use one of the granules which have dried for two or three weeks in the sterile tubes. The drying of the granules for this length of time will probably suffice to kill off most of the contaminating bacteria and enable isolated colonies of the specific microorganism to be obtained in the agar suspension cultures.

The author obtained true "clubs" in cultures by using blood or

blood serum preferably with serum of blood rich in fibrin, obtained through venesection in cases of pneumonia, and also by pleuritic fluids yielding a fibrinous clot rapidly.

In concluding the author considers the microorganism essentially an anaërobe, does not form spore-like reproductive elements, grows well only in agar and bouillon cultures in the incubator.

Inoculation experiments on animals produced the characteristic "club" bearing colonies in the tissues of the experimental animals. These colonies were either enclosed in small nodules of connective-tissue or were contained in suppurative foci within nodular tumors made up of connective-tissue in varying stages of development.

The author thinks from his studies and from a review of the literature that the widely disseminated branching microorganisms thought by Bostroem and others to be the specific infectious agent of actinomycosis is really quite different, having spore-like reproductive elements and should be grouped together as a separate genus with the name of *Nocardia* and that infection by them should be called nocardiosis and not actinomycosis. The term actinomycosis should be used only for those inflammatory processes, the lesions of which contain the characteristic granules or "drusen." That a nocardia ever forms these characteristic structures in lesions produced by it in man or cattle has not been convincingly shown.

Because the microorganism here described does not grow well on all the ordinary culture media and practically not at all at room temperature, he does not believe that it has its usual habitat outside of the body. He offers as suggestion the idea that *actinomyces bovis* is a normal inhabitant of the secretions of the buccal cavity and of the gastro-intestinal tract, both of man and animals, but of this he offers no proof.

In these secretions it should not exist in the characteristic forms seen in the lesions, but in the form of fragmented filaments growing in company with bacteria, and not now differentiated from them. He does not believe that foreign bodies so frequently found in actinomycotic lesions play an important rôle, but simply afford a nidus in the tissues for actinomyces which enters therein with the secretions from the buccal cavity and gastro-intestinal tract.

The clubs or hyaline envelope surrounding the peripheral filaments of a colony of actinomyces he thinks are due to a protective reaction of the filaments against the destructive effect of the juices and cells of the tissues.

Madura-foot (*Mycetoma Pedis*). The Pathological Anatomy of the Indian. M. OPPENHEIM. (*Archiv f. Derm. u. Syph.*, lxxi., 1904, p. 209.)

While on a visit to India the author availed himself of several specimens of both the "yellow" and the "black" variety and presents the

results of his histological researches with a review of the literature. In the two specimens of the yellow variety he found the histological picture of a streptothrix which he states is impossible to identify with actinomyces, but rather should be called by the name streptothrix maduræ given it by Vincent. His findings in the black variety may be summed up as follows: In the numerous spaces formed by granulation and thick connective-tissue are enclosed black kernels. These are composed of a peculiar degenerated and broken down conglomeration of red and white blood-cells, connective-tissue and fungus growth. The fungus, which penetrates these masses in all directions is segmented, and shows bladder-like expansions which in the center of the kernels resemble *sclerotium* of *claviceps purpurea*. These can be stained only after destruction of the surrounding mass and most resemble moulds which present conidial fructification. It is impossible to fix the position of this fungus until its organs of fructification are found. It in no case belongs to the actinomyces group.

Nosocomial Gangrene. S. RÓNA. (*Archiv f. Derm. u. Syph.*, lxxi., 1904, p. 191.)

In a study of six cases, the author confirms the observations of Vincent, Coyon and Brabec as to the causal relation of the fusiform bacillus in certain characteristic forms of extragenital gangrenous and necrotic processes which in former times were grouped under the general term of "wound diphtheria" or "hospital gangrene."

He considers Matzenauer's gangrenous genital ulcer to present almost identical clinical and bacteriological appearances. This bacillus which resembles somewhat the vibrio septicus, except the ends are more pointed, is about 4-8 μ long, 1 μ thick, presents vacuoles, decolorized by Gram, is usually accompanied by a fine spirillum resembling that found in Vincent's angina.

Although found in great numbers in the diphtheroid membrane, the bacillus does not penetrate deeply. The neighboring glands and the circulation remain free. Blood taken from the heart of a fatal case showed no bacilli.

It has been impossible to cultivate either the bacillus or the spirillum. While the contagiousness of the disease is well attested, animal inoculations have proved unsuccessful.

The Pathological Manifestations due to the Symbiosis of the Fusiform Bacillus and Spirillum.—*La Symbiose Fusospirillaire. Les Diverses Determinations Pathologiques.* H. VINCENT. (*Ann. de Derm. et Syph.*, 1905, p. 401.)

Vincent was the first, in 1896, to call attention to the association of a fusiform bacillus and a spirillum as the pathogenetic agents in hospital gangrene. In this study he shows the causal relation of the same sym-

biosis to a number of other affections such as phagædenic ulcer of the tropics; Vincent's angina, of which he makes two varieties, *pseudo-membranous* or *diphtheroid* in which the fusiform bacillus is found associated with a streptococcus, and ulcero-membranous in which the fusiform bacillus and spirillum are associated; ulcero-membranous stomatitis; noma or gangrene of the mouth; gangrene of the lung; dental abscesses; periosteal abscesses, etc.

The fusiform bacillus is widely disseminated, being found in the soil, in the digestive tract of man and certain animals, especially in the buccal cavity.

The morphology of the fusiform bacillus is that of an elongated club or lozenge, its central portion is 1 to 1.5μ in diameter, tapering to sharp point at the ends. Its length 6 to 8μ for the short, and 10 to 12μ for the long specimens. This bacillus is usually straight and shows vacuoles under staining. Multiplies by segmentation, grows in bouillon or agar to which one-fourth of human serum has been added. Grows when exposed to air or in anaërobic conditions. In cultures it presents the club form, gives off a fetid odor, is immobile.

The accompanying spirillum is fine, with numerous coils, actively motile in saliva, and cannot be cultivated.

Neither spirillum nor bacillus takes the Gram and he denies the hypothesis that they form one organism with different stages of development on account of length, thickness, form, structure of protoplasm, mobility, culture, etc., being entirely distinct.

The spirillum seems to favorize the destructive and necrotic action of the bacillus, as the abundance of the spirillum seems always to accompany the severe forms of infection, and to be scarce in the milder types.

A symbiosis so ubiquitous would seem to require a concourse of favorable factors—to be, in fact, indispensable in order to cause infection.

Such is the case, as the author has shown by experiment that the fusiform bacillus is incapable of multiplying in man or animal unless the vitality of the patient has been depressed by certain cachexias such as tuberculosis, syphilis, paludism, scurvy, cancer; or by certain intoxications as by putrid gases, by mercury, lead or uræmic auto-intoxication; or by microbial or mechanical attrition of the tissues. The article has a very complete literature of the subject.

Trichophytosis of the Beard.—*Etude sur les Trichophyties de la Barbe.*

FELIX HALGAND. (*Arch. de Parasitologie*, 1904, p. 590.)

Sabouraud's opinion expressed in 1892-3, was that all cases of hyphogenic sycosis were caused by trichophyton of animal origin. The pustular, kerion type was caused by the large, plaster-like growth from ringworm of the horse. The moist, exuding type of sycosis by the yellow powdery growth from ringworm of cattle. The scaly desquamating type by the downy pink growth from birds.

It was accepted as demonstrated that certain of these fungi were pyogenic. Halgand puts in doubt the deductions of Sabouraud and Bodin as to the inherent pyogenic qualities of certain trichophytons. He cites cases where the same trichophyton megnini may cause in one man a dry desquamating ringworm of the beard and in another a pyogenic kerion.

He thinks the whole question should be restudied. Is it the soil or certain secretions of these fungi that differ in different cases?

Metastatic Dermatitis due to the Gonococcus.—*Gonococcie métastatique de la peau. Angiodermite suppurée a gonocoques.* AUDRY. (*Ann. de Derm. et Syph.*, 1905, p. 344.)

Audry's observation was that of a young German, nineteen years old, who presented himself for treatment at the clinic with a multiple arthritis, coming on shortly after the first attack of gonorrhœa. The joints affected were right sterno-clavicular, second joint of little toe, and articulations of the fifth to eighth cervical vertebræ. In addition an erythematous rash on the thighs, buttocks, abdomen, neck and arms. After four days this rash disappeared, to be followed by an eruption upon the knees, elbows and toe exactly resembling an erythema polymorph. Some of the lesions developed phlyctenules, while others near the affected joint of the little toe became purulent.

A histological examination of tissue taken from one of the lesions near the knee, revealed migrating polynuclears between the deep epithelial cells, charged with gonococci. He recalls other observations showing that gonococœmia may produce in the tegument:

First—Erythema—simple, scarlatiniform, multiform.

Second—Pustular eruption containing gonococci.

Third—Subcutaneous abscesses upon the fingers.

Fourth—Paronychia gonococcic.

He believes that some of the lesions are of the nature of an angiodermite due to the toxines elaborated by the gonococcus and others to the gonococcus itself.

Since the greater number of observations have been made upon Germans he suggests a possible greater susceptibility of that race.

RADIO- AND PHOTO-THERAPEUTICS.

By W. A. PUSEY, M.D., Chicago.

X-Ray Treatment of Lipomata. BONDET. (*Lyon Medicale*, 1904, ii, 223.)

This report covers the case of a woman affected with Dercum's disease. She had twenty-two symmetrically distributed painful lipomata, and was greatly debilitated. Three of the largest tumors were subjected to X-ray exposures, and after fifteen treatments they had diminished in diameter 48 mm., 12 mm., and 10 mm. respectively. Under the combined

use of X-rays, thyroid extract, and iodide of potassium all the tumors diminished in size and the general health became excellent.

Kathode Rays as a Substitute for Roentgen and Radium Rays.

STREBEL.

Kathode rays when absorbed by the skin produce an effect similar to that of the Roentgen and radium rays, and they are governed by the same laws in producing this effect, the intensity of the reaction produced being dependent upon the amount of energy absorbed. The greater the energy used and the longer the time of exposure of the tissues the earlier the inflammatory reaction appears. As to the therapeutic application, kathode rays seem to be more closely related to radium rays than to X-rays. On account of difficulty of application of kathode rays, Strebel has as yet treated with them only two cases of epithelioma and some lupous areas.

Exposure for eight to ten minutes sufficed in some instances to produce a severe reaction and subsequent absorption of the infiltrations.

Strebel considers that the kathode rays form an excellent substitute for the expensive and with difficulty obtainable radium.

Sarcoma Idiopathicum Multiplex Haemorrhagicum. HALLE.

Halle has seen better results from X-ray treatment in this condition than from any other therapeutic procedures. A certain definite dosage of X-rays was used, exposures lasting from ten to fifteen minutes, with a current of three milliamperes, the tube at an average distance of fifteen centimeters. A reaction was awaited after each exposure, and the reddening of the skin was accompanied by a gradual diminution in the size of the tumors.

Together with retrogression in size, there was a depigmentation. The central parts of each tumor growing lighter until the originally diffusely dark hue was limited to the outer ring. Thus there arose light brown pigmented macules with a dark brown border. In these areas the infiltrations finally vanished completely, while they showed nothing abnormal except a slight atrophy and the pigmentary changes.

In recommending X-rays as the most satisfactory therapeutic procedure for these cases, Halle states that their effect upon internal metastases was limited to a control of the subjective symptom, and, perhaps, to a retardation of the development of the internal growth.

Summary of the Work of Leading German Radiotherapeutists. HAHN. (*Fortschritte an den Geb. der Röntgenstrahlen*, 1905, viii., 313.)

This summary made by Hahn, on the occasion of the recent decennial Röntgen Congress, is of interest as showing the extent to which X-rays

have been made use of as a therapeutic agent in Germany. Hahn's list included over 2600 cases distributed as follows:

Lupus and Tuberculosis cutis	709
Eczema	329
Hypertrichosis	269
Psoriasis	219
Rodent ulcer	203
Sycosis parasitica	145
Sycosis idiopathic	87
Carcinoma	113
Pruritus	75
Verruca	64
Lupus erythematosus	60
Acne vulgaris	59
Sarcoma	51
Nævus vasculosus	25
Acne rosacea	18
Ringworm	15
Favus	75
Alopecia areata	13
Callosities	9
Mycosis fungoides	8
Prurigo	6
Dysidrosis	5
Rhinoscleroma	5
Neuralgia	5
Ichthyosis	4
Scleroderma	4
Seborrhoea	3
Leukæmia	3
Leprosy	3
Keloid	3
Lupus carcinoma	2
Hysteria	2
Erysipelas	2
Hyperidrosis	1
Alopecia idiopathic	1

With this may be compared the report of Bisserie and Mezerette (*Ann. de Derm. et Syph.*, 1905, vi., 345). on 558 cases treated with X-rays at l'Hôpital Broca, Paris:

Sycosis, 23 cases treated, 12 cured, 11 under treatment; Acne, 10 cases, 4 cured, 6 recurrent; Nævus planus, 4 cases, 2 improved, 2 under treatment; Keloid, 25 cases treated, 14 cured, 11 under treatment;

Neurodermatitis, 27 cases, 24 cured, 3 under treatment; Lichen, 24 cases, 17 cured, 7 under treatment; Verruca plana, 25 cases, 17 cured, 4 unsuccessful, 4 under treatment; Psoriasis, 24 cases, 22 cured, 2 under treatment; Lupus vulgaris, 46 cases, 29 cured, 4 improved, 7 unsuccessful, 6 under treatment; Lupus erythem., 33 cases, 20 cured, 8 improved, 2 unsuccessful, 3 under treatment; Epithelioma, 186 cases, 142 cured, 3 unsuccessful, 41 under treatment; Sarcoma, diffuse cutaneous, 8 cases, 6 cured, 2 improved; Melano-sarcoma, cutaneous, 12 cases, 10 cured, 2 improved; Mycosis fungoides, 9 cases, 6 cured, 3 improved; Paget's disease, 9 cases, 6 cured, 3 under treatment; Epithelioma of upper lip, 11 cases, 8 cured, 3 unsuccessful; Epithelioma of the lower lip, 11 cases, 6 cured, 5 unsuccessful, 2 under treatment; Epithelioma of the tongue, 17 cases, 3 cured, 2 improving, 11 unsuccessful; Carcinoma of breast, 38 cases, 6 cured, 5 improving, 27 unsuccessful; Melano-sarcoma of breast, 2 cases, improved.

The Action of X-rays on the Normal Epidermis and on Epitheliomatous Tissues. DALOUS and LASSERRE. (*Ann. de Derm. et Syph.*, 1905., vi., 305.)

The researches of Dalous and Lasserre confirm the previous conclusions of Scholtz and others as to the method of action of the X-rays on epidermal tissues. They found the primary effect to be a marked alteration of the generative layers of the epidermis, the vitality and reproductive powers of which are much lessened. Hence results an atrophy of the epidermis, which is expressed first in a thinning of the epidermis, and second in the absence of the interpapillary prolongations. The effect on the cutis was practically nil in the tissues examined by the writers, which had received nine exposures, and were, judging from their description, in the first stage of X-ray dermatitis.

The writers express their conclusions from their studies thus. "There is a special lesion of the epidermis due to the action of the X-rays; a true "radio-epithelitis." Analogous changes are produced in epitheliomatous tissue, and connected with them occurs a marked reaction of phagocytic cells. The destruction of epithelial cells by the X-rays, however, is not total;—some of them are much more sensitive than others. These more sensitive cells are, in the normal epidermis, the generative layer and the cells of the mucous layer immediately above it; and in the epitheliomatous tissue the corresponding cells; while those cells with well-marked inter-cellular filaments and the corneous cells show less marked effects of the X-ray action, and retain a sufficiently perfect cohesion to resist efficaciously the action of the phagocytes. This fact permits us to understand why it is that epitheliomas of the lobulated pavement type are less satisfactorily influenced by X-rays than those of the tubular type; since the X-rays have a more or less selective action upon certain anatomical elements of the normal epithelium."

The Results of X-Rays in Tinea Tonsurans. SABOURAUD. (*Ann. de Derm. et Syph.*, 1904, p. 577, and 1905, p. 80.)

Sabouraud's series of reports of the treatment of ringworm by X-rays form a most weighty argument in favor of the use of this method. He concluded, at first on theoretical grounds, that the X-rays more nearly met the indications in these conditions than any other therapeutic procedures at our command, and in January, 1904 (*Ann. de l'Institut Pasteur*), outlined the method of treatment which he proposed to follow, based on previous experiments. Complete epilation was produced over the desired area by the administration at one sitting of X-rays equivalent to four to five Holzkecht units. Both healthy and diseased hairs are shed about fifteen days after the exposure, and when the diseased hairs have all fallen out, within twenty-five days of the treatment, the infectiousness of the process is lost. New and healthy hair covers the area again within ten weeks.

In his second paper (*Ann. de Derm. et Syph.*, 1904, p. 577), Sabouraud gives the results of this treatment for the preceding six months. One hundred and thirty-four hospital patients were discharged cured, in addition to a large number of out-patients treated and cured, this being an increase of nearly 180 per cent. over the results during the previous six months under other methods.

The third report covering the whole of the year 1904 (Sabouraud, Pignot and Noiré, *Ann. de Derm. et Syph.*, 1905, p. 80) gives the number of cures for the year as 374, as contrasted with 164 the previous year under old methods, and this does not include 212 out-patients cured. Sabouraud urges the advantages of X-ray treatment, emphasizing the maximum time of treatment of three months as contrasted with the two years previously necessary, and the ease of application, as good results having been obtained with out-patients, as with those in the hospital. He estimates the saving to the Department de l'Assistance brought about by the use of the X-rays at 1,500,000 francs, in cost of hospital beds, no longer needed: 424,000 francs for beds which would have been required for those treated as out-patients, and 108,000 francs through the abandonment of extra-urban colonies for diseased children. In fact, ringworm in all its forms is now, thanks to X-rays, entirely under control in Paris, and Sabouraud expresses his belief that within five or six years it will have disappeared from the city.

SYPHILIS OF THE SKIN AND MUCOUS MEMBRANES.

By WALTER C. KLOTZ, M.D., New York.

Marked Development of Secondary Manifestations in the Vicinity of Primary Lesion. HALLOPEAU and TEYSSEIRE. (*Bullet. de la Soc. Fr. de Derm. et Syph.*, xv., 1904, No. 9, December, p. 368.)

The authors have previously reported the occurrence of particularly marked secondary manifestations, in the vicinity of the primary chancre.

In the given case the patient who had contracted syphilis three and one-half months before, showed a marked prurigenous papular eruption occupying the entire right inguinal region. The rest of the body was covered with a fading typical roseola, with a few scattered flat pale papules. There were some ulcerations of the buccal mucous membrane. They do not consider this a mere coincidence, but believe that the severe eruption in the inguinal region, is due to the proximity of the indurated chancre of the penis and caused by the fact, that the micro-organisms derived directly from the primary lesion possess greater virulence than those produced by secondary generations at some distance from the primary site of infection. They formulate the following law: That in the localization of syphilitic manifestations those nearer the primary lesion present greater activity than those due to "intra-inoculation" at some distance, and that successive crops diminish in intensity; that therefore the greatest virulence is found in the primary lesion becoming more attenuated according to the distance from the primary lesion of the part of the body affected.

The Multiplicity of the Syphilitic Chancre. BEURAIN et DUMONT.
(*La Rev. Med. de Normandie*, 1904, December 23, No. 24,
p. 485.)

In view of the general impression, occasionally found in medical writings that the primary lesion is usually single the authors consider it of sufficient importance to draw attention to the fact that the syphilitic chancre is not infrequently multiple, and in proof of their argument present the condensed histories of twenty-five cases of multiple chancre, occurring in ninety-one consecutive cases of primary lesion admitted to their clinic. The authors admit that the statements of the patients could not always be relied upon, as to whether all the lesions had appeared at exactly the same time.

Further Experimental Studies in Syphilis. METCHNIKOFF and ROUX.
(Third Report. *Ann. de L'Institut Pasteur*. xix., 1904, November.)

With the exception of the experiments of Lassar and Neisser, the investigations of the above authors are the only researches as to the bacteriology of syphilis that have produced any positive results. The above report on their experiments must, therefore, arouse considerable interest, and their further development be looked forward to with the hope that they may bring about a solution of the obscure problems connected with this disease. The object of these experiments being the determination of the character of the syphilitic virus, its attenuation, and, if possible, the production of an artificial preventive or curative serum, the authors have in previous reports satisfactorily demonstrated the susceptibility of certain apes to inoculation with virus from syphilitic human subjects, and succeeded in producing in such animals a typical primary chancre, followed

by a general secondary eruption. At the same time, it has been impossible to exactly define the virus, or to isolate any specific microörganism. In the last series of experiments an ape was inoculated with virus that had been diluted with aqueous humor of a sheep, and filtered through a Berkefeld filter 12A. The inoculation was negative. But another ape, inoculated with some of the same serum before it had been filtered, developed a primary lesion and secondary eruption. This would show that the active agent of syphilis is contained in the serous secretion of the primary lesion, but will not pass through such a filter. In the same way it was shown that exposure to a temperature of 51 degrees for one hour rendered the virus ineffective. On the other hand, it was shown that mixing the virus with glycerine did not impair its power. These facts are of considerable importance in the preparation of an artificial preventive serum. Attempts at inoculating and thus immunizing apes with such serum that had been filtered and exposed to heat were, however, negative; as such animals when subsequently inoculated with virus from syphilitic subjects, were as susceptible as fresh animals. A chimpanzee inoculated with virus from an artificially syphilitic ape, developed only a slight primary chancre, which was not followed by secondary eruption, showing that the virus had suffered attenuation in its passage through the animal.

Syphilis and Vitiligo. GEO. THIBIERGE. (*Ann. de Derm. et Syph.*, vi., No. 2, February, 1905.)

After reviewing some of the literature regarding this much-discussed question, the author presents the histories of three cases in which an unquestionable syphilitic infection occurred in individuals who had previously been affected with typical vitiligo. This he believes would show that syphilitic infection can take place in individuals who have vitiligo. For the sake of argument he considers the possibility of a previous infection with syphilis, but believes this to be so very rare as to hardly deserve any consideration. In view of the possible objection, that the individuals were hereditarily syphilitic, he takes pains to state positively that they bore no signs or stigmata of hereditary taint. On the other hand, he cites a number of histories of cases reported elsewhere and observed by himself in which vitiligo occurred in syphilitic subjects after the appearance of other characteristic symptoms either in the vicinity, or at a distance from these lesions. He would consider, therefore, the possibility of some indirect connection between syphilis and vitiligo, through the medium of the nervous system, but does not think the question can be settled in the face of present evidence.

Agglutination of Blood in Normal and Syphilitic Subjects—Experimental Studies. L. DETRE and SELLEI. (*Archiv für Derm. u. Syph.*, lxxii., No. 3, 1904, p. 323.)

This excellent article contains a careful consideration of agglutination in general and a description of important experimental research, as

to the agglutination of blood in healthy and syphilitic individuals. Following a presentation of the method employed, the authors offer in detail its application in two cases of syphilis, and the tabulated results obtained from a study of the blood of fifty syphilitic subjects. Where the serum from one individual was employed, syphilitic blood showed increased agglutination in the proportion of 47 per cent. to 33 per cent., as compared with normal blood, but when the serum of a second normal individual was used, there was hardly any difference in the agglutination reaction in syphilitic and normal individuals. The authors would, therefore, conclude that as far as agglutination is concerned, syphilitic blood reacts like normal blood. It was further found that if normal serum caused agglutination of syphilitic blood, serum of a syphilitic subject did not cause agglutination of normal blood, but that if normal serum does not cause agglutination of syphilitic blood, syphilitic serum might or might not cause agglutination of normal blood.

Results of experiment would show, also, that no agglutination takes place between syphilitic serum and syphilitic blood, but the authors are not willing to attach any significance to this phenomenon. They did not find any connection between mercury and agglutination of syphilitic blood. The remaining discussion concerns more particularly the subject of agglutination in normal individuals, especially reciprocal agglutination, and will not be entered upon here. The main point of interest in the article from our point of view being the absence of any characteristic syphilitic reaction of the blood, which would be of practical value in diagnosis.

Histological Studies of the Papular Syphilide. JOHANNES FICK. (*Monatsh. für Prakt. Dermat.*, xl., No. 4, February, 1905.)

The specimens examined were elevated scars following a papular tubercular syphilide; they were fixed and hardened in alcohol and imbedded in paraffin and stained with polychrome methylene blue and with Unna-Tänzer. Histological examination of the stained specimens showed thinning of the epidermis—the meshes of the rete were flattened or entirely obliterated. The stratum corneum was relatively thickened—the granular layer was persistent. The cutis presented a typical picture of recent scar, papillæ were absent and the elastic fibers much diminished. The connective-tissue and mast cells were increased in number; mononuclear leucocytes, plasma cells, giant cells, and epithelioid cells were found in the perivascular infiltration. Occasionally epithelioid cells were found also in the lymph vessels. When present they were characterized by their sharp outline, granular protoplasm, vesiculated nucleus, and by their staining less intensely than the leucocytes. The nucleus itself was oval and showed several granular pigmented bodies. The cells were found either within the lumen of the lymph vessel, or at times attached and continuous with its wall. This would lead the author to conclude that

they had proliferated from the wall of the lymphatic itself. He excludes the possibility of having mistaken a connective-tissue space for a lymphatic by noting that a complete endothelial lining was present. He believes that the epithelioid cells are not derived from the endothelial lining of the lymphatic, but are the result of a proliferation of the intima and possibly also of the adventitia. In conclusion, he points out a certain analogy between resolution of the tuberculous syphilide and the metamorphosis of condylomata lata into elevated organized papulæ as described by Lang. Beyond the above histological findings nothing of special interest is contained in the article.

Nodular Lymphangitis of the Conjunctiva Complicating Chancre of the Lower Eyelid. DELAUNAY. (*Ann. de Derm. et Syph.*, v., 1904, No. 12, December, p. 1087.)

While nodular lymphangitis is quite common in the case of genital chancres, it is very rare in this situation, and the report of the above case is consequently of some clinical interest. The patient, a male, was admitted to the service of the author on March 21, 1904, presenting a crusted, indurated ulcer of the lower lid, and a beginning general roseola. A small nodular swelling about the size of a small pea could be distinctly felt beneath the mucous membrane of the conjunctiva; the overlying surface of the mucous membrane was not adherent nor ulcerated. A line of induration could be felt along the external surface of the cheek from the angle of the eye to the submaxillary glands, which were distinctly enlarged.

BOOK REVIEW.

Manuel Elementaire de Dermatologie Topographique, Regionale. Par R. SABOURAUD, chef de laboratoire de la Ville de Paris à l'Hôpital Saint-Louis. Masson et Cie. pp. 756. Paris, 1905. Price 15fr.

This is a unique book. But then its author is nothing if not original and full of the courage of his convictions. We have had many, perhaps too many, treatises on dermatology, from the modest handbook to the ponderous encyclopedia in several volumes. They have all followed the same plan in presenting the various diseases of the skin either grouped according to some more or less unsatisfactory classification, or arranged alphabetically, classification being ignored. We have had books on the treatment of skin diseases, and "Quiz Compendes"; poor crutches to help poor students over the stile of examinations, and in all of them the subjects were presented after the same old plan. It remained for Sabouraud to blaze a new trail which there is little doubt others will follow.

As the title of this book indicates it is a manual of topographical dermatology, by which is meant that every region of the body is made a chapter, and all the diseases of the skin that occur on it, whether on it alone or as part of a general dermatosis, are described in few, well-selected, words, and their treatment concisely given.

To illustrate: The first division, or chapter if you please, is The Face in general. Under it are described eczema of infants, naevi, freckles, xeroderma pigmentosum et atrophicum, impetigo, pityriasis, ringworm, seborrhœa, acne vulgaris, erythema pernio and frost bite, lupus erythematosus and vulgaris, syphilis, leprosy, erysipelas, psorospermiosis follicularis, chloasma, vitiligo, artificial dermatitis, rosacea, senile warts, epithelioma, mycosis fungoides, and lymphadenitis. To this division follow others on diseases of the mouth, the tongue, gums, throat, inside of cheeks, etc. After all the regions of the body are thus considered, the generalised dermatoses are taken up grouped under the leading symptom, as squamous, urticarial, papular, vesicular, exudative, etc. Under each of these groups is placed a full list of those diseases that belong there, with their symptoms, etiology, and treatment. The final group is entitled: "The great chronic infectious dermatoses," and includes syphilis, tuberculosis, leprosy and farcy. The author in his preface gives his motive for writing the book as follows:

"If a physician encounters a cutaneous disease which he does not know to be scabies, it is hard for him to know what special article in his text-book he should consult. On the other hand it is easy for him to recognize upon what region the disease is located, whether the wrists, hands or anywhere, and he readily can turn to the sections on wrist, hands, etc., and find a description of the disease." To render the search still easier, the author has placed on the first three pages of the book outline drawings of the full face, cross sections of the mouth, nose and pharynx, the anterior and posterior planes of the body, etc., with numbers on each region, which numbers refer to the page of the book on which the diseases of the region are described. The whole arrangement is most ingenious, and must have cost the author a great deal of careful, painstaking thought.

From such a clever workman as Sabouraud we expect valuable work and

we are not disappointed. The text bristles with good things, and though the book is designed for the non-expert, the expert will find his reward in studying it. The French excel all others in the clearness of their descriptions and statements. This book is no exception and is delightful to read.

Bacteriology is fully considered, as we would naturally expect from so eminent a bacteriologist. No less than seven varieties of *trichophyton* are described. When we remember that not long ago Sabouraud thought that he had found a definite organism as the cause of alopecia areata, it is proof of his honesty that he now states definitely that the disease is not contagious, and that we do not know its cause. Indeed he goes so far as to affirm that the reported epidemics of the disease are errors in diagnosis. It seems to us that in this he goes too far, and is overbold in questioning the diagnosis of not a few competent dermatologists.

Our author has found X-rays pre-eminently useful in the treatment of acne, epithelioma, favus, both kinds of lupus, mycosis fungoides, sarcoma, sycosis, and trichophytosis. He gives exact directions in the technique, constantly quoting the use of his pastiles and the Holzknecht scale.

While the virtues of this book are very great and far outweigh its defects, still there are some defects. While the arrangement of the matter is most ingenious it is such as to necessitate much repetition, making the book unnecessarily bulky. It is true that cross references somewhat reduce the redundancy. If they were employed more freely, it seems to us it would be better. While the French are easily first in the making of colored illustration, we excel them in half-tone work. And so here, of the 251 black and white illustrations many are far below our standard. To allow for their printing a very heavy glazed paper is used so that the book weighs nearly four pounds. In these days of fine paper such a weight is too much.

The greatest defect of all, and one that seriously impairs the usefulness of the book is the want of an index. There is a saying that runs somewhat like this:

"How index learning turns no student pale.
Yet holds the eel of science by the tail."

It is always a source of wonder to us that German and French authors do not furnish their books with indexes. Such a book as this one loses much of its value because of this deficiency.

But this book is a valuable contribution to dermatological literature. We heartily congratulate its author upon its production and trust that it will meet with the wide recognition that it deserves.

G. T. J.

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EPITHELIOMA OF THE FOREHEAD HAVING ITS ORIGIN IN A PAPILLARY NÆVUS.

By DR. JAY F. SCHAMBERG,

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Associate in Dermatology, Philadelphia Polyclinic and College for Graduates in Medicine.

JOHN C., aged twenty-four years, has had since birth a linear papillary nævus about three centimeters long, extending downward from the hairy border of the forehead almost in the line of the fronto-temporal suture. This is characterized by irregular, pale pinkish yellow elevations the size of pin-heads, somewhat resembling the small points seen in Fordyce's disease of the lips. In the center of these prominences are dilated follicular openings.

Two years ago the nævus was injured with a blow of an umbrella, the ferrule wounding the skin; a few months later the patient noticed a growth beginning at this site. The growth gradually increased in size and others developed so that at the present time the following appearances are presented:

Upon the right side of the forehead occupying the lower portion of a papillary nævus are four split-pea sized nodules; these are broken down in the center and covered with blood crusts. The borders are firm, somewhat pearly in appearance and inclined to be vascular. The lesions have been slowly increasing in size. The family history is entirely negative as far as carcinoma is concerned.

Histological Examination. Three of the nodules were excised, stained in various ways and subjected to microscopic study. The pathological changes in the growths examined are so similar as to require no separate description.

Under low power there are at once distinguished two distinct circumscribed tumor-masses which extend from the sub-papillary layer throughout the depth of the corium. These are separated from each other by a large hair follicle beyond which on both sides is an extensive small cell infiltration.

The tumor masses are made up of epithelial cells between which a sparse stroma may be seen. The larger of the two masses exhibits an arrangement of the cells in lobuli; the smaller has more of a tubular and acinous appearance. Over the centre of the larger mass in two of the nodules the epidermis is absent, and at this point the epithelial lobuli are separated by wide interstices some of which contain an œdematous stroma with scattered small cells.

The intact portion of the epidermis shows a complete flattening of the papillæ, evidently from upward pressure of the growth. The epithelial masses are in these regions separated from the epidermis by but a narrow strip of the corium which is profusely studded with small cells. The epidermis, at the points at which the periphery of the tumor-masses slopes away from it downward into the deeper layers of the corium, shows papillæ of normal size. Nowhere are there evident any down-growths of the rete mucosum connecting with the tumor-masses.

No pearly bodies are present.

The protoplasm of the cells takes the stain imperfectly. The nuclei are extremely irregular in shape and size. They stain more darkly than the cells of the intact epidermis because of the greater number of chromatin granules which they contain. No limiting membrane is present and prickle prolongations are absent.

Some of the sections beyond the tumor border exhibit a great number of sebaceous glands, which are so enormous in size as to occupy almost the entire depth of the corium.

In one field a number of acini of sebaceous glands are seen in cross-section. Some of these are normal and intact. Several acini, however, in the center of the normal glands exhibit an extensive proliferation of epithelial cells which have invaded and broken up the structure of the acini to such an extent that they are no longer recognizable as such. (Fig. 6.) Nearby in the surrounding stroma there is seen a circumscribed area filled with polymorphonuclear leucocytes. Another section shows a dense band of epithelial cells (ten or eleven cells in width) traversing the center of a sebaceous acinus and completely dividing the gland in two. The mother-cells of this gland show distinct proliferation. (Fig. 5.)

These acini are surrounded by a fibrous stroma containing

FIG. 1.

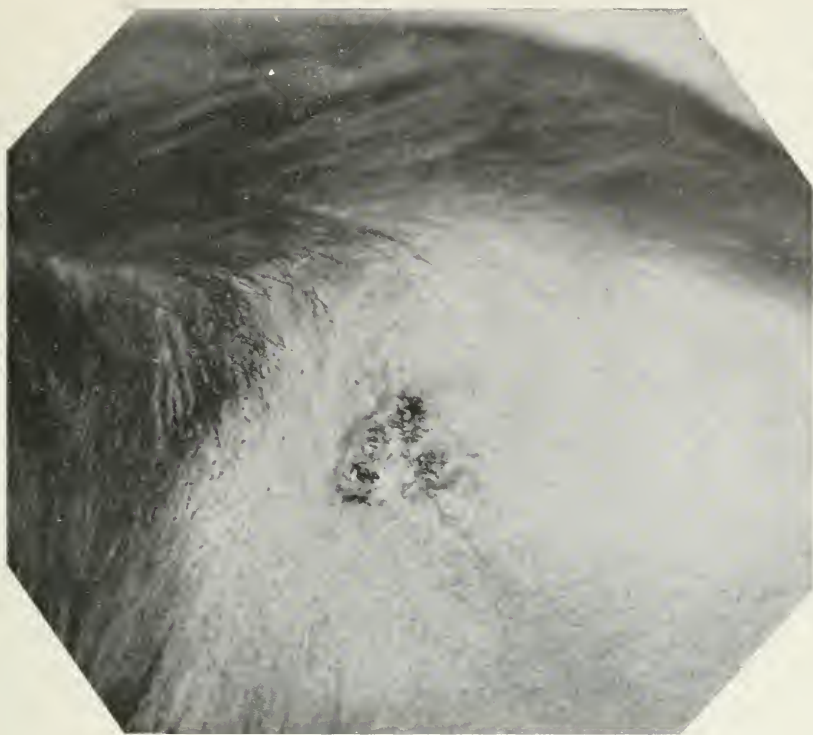


FIG. 2.



FIG. 3.

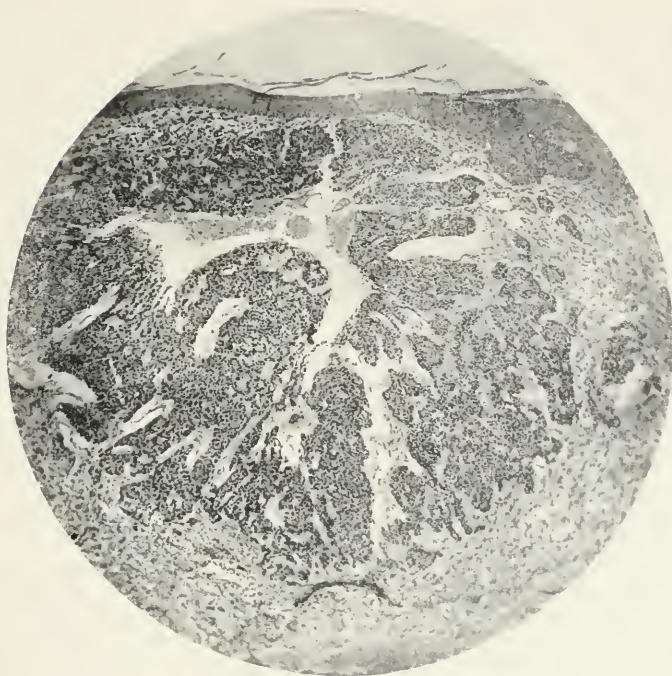


FIG. 4.



FIG. 5.



FIG. 6.



numerous round cells and are completely cut off from any epithelial structure. Whether this invasion is the result of an independent carcinomatous proliferation of the mother-cells of the gland, or whether it is a secondary involvement from a neighboring structure, not shown in the section, cannot be positively stated.

The larger epitheliomatous tumor-mass described above, appears to have its *origin in a budding process of a neighboring hair follicle*, the same follicle which divides the two epitheliomatous tumors. A lateral off-shoot of the follicle wall extends obliquely downward toward the larger tumor-mass. The epithelial cells of the follicle are not absolutely continuous with those of the tumor, but the hiatus is extremely narrow, and this small intervening space shows irregular groups of epithelial cells. While the origin of this tumor-mass is, therefore, not established beyond the peradventure of a doubt, the relation between the follicle wall and the tumor-mass is so intimate as to strongly point to origin in the former structure. (See illustration No. 2.)

The intervening stroma between the epithelial masses contains a large number of lymphoid cells together with abundant plasma cells.

The features of interest in connection with the above case are: the comparative youth of the patient, the pertinent history of traumatism as an exciting cause of the epitheliomatous growth, and the origin of the epithelioma in a non-pigmented papillary nævus. But little reference in literature is to be found in connection with malignant growths developing from non-pigmented nævi. Most of the malignant growths reported have been melanotic sarcomata and melanotic carcinomata from pigmented nævi. Löwenbach has reported a case of endothelioma having its origin in a non-pigmented nævus. The carcinomatous nature of the above-described growth is perfectly clear.

DESCRIPTION OF PLATES.

FIG. 1. Epitheliomatous nodules. The papillary nævus is seen extending above and below the growths.

FIG. 2. Drawing showing the probable origin of the epithelioma from a lateral offshoot of a hair follicle. Leitz Object 5. Ocular 1.

FIG. 3. Lobulated epitheliomatous mass. Flattening of the rete mucosum.

FIG. 4. Flattening of the epidermis by upward pressure of growth. No connection seen between the rete mucosum and the tumor-mass.

FIG. 5. Dense-infiltration of a sebaceous acinus by epithelial cells doubtless originating in the mother-cells on the border of acinus.

FIG. 6. Destruction of sebaceous acini by invasion and proliferation of epithelial cells.

SMALL MULTIPLE KERION: AN UNUSUAL TYPE OF TRICOPHYTOSIS.

By J. FRANK WALLIS, M.D.

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TO clinicians in special branches of medicine as well as in general medicine, no fact is better known than the tendency of diseases to present certain definite clinical aspects which seem to be without solution yet undoubtedly distinct enough to serve as characteristics of their respective diseases. As an example, may be mentioned, the inability of the ringworm fungus to thrive and produce its characteristic lesions on the scalp of individuals over 15 or 16 years of age. It will be my purpose, in this paper, to show that this observation is to some extent faulty and that the fungus does thrive under some circumstances in persons past this age and that the lesions are somewhat characteristic but the entire clinical picture is obscured by an associated affection. I shall endeavor to substantiate this statement by the complete clinical histories of ten cases presenting these several features. In the absence of a more descriptive nomenclature I have designated the condition—Small Multiple Kerion.

CASE 1. M.S. female, age sixteen. The duration of the affection was six months. The patient sought treatment for the relief of a pustular condition of the scalp which was first thought to be secondary to pediculosis capitis: a condition that was also present. The lesions consisted of multiple, small, follicular abscesses about the size of a lentil or slightly larger. Each lesion began as a folliculitis and eventually developed into a small abscess, which on rupture discharged a thick creamy pus. The lesions started over the left frontal region and gradually spread in all directions until the entire scalp became involved. The site of each ruptured abscess was marked by a depression. The condition showed a tendency to heal, but in the course of a few weeks another folliculitis would develop on the site of the previous disease with recurrence of every phase of the condition. The condition was extremely refractory to treatment. There was loss of hair over each lesion, but the diseased area was

dotted with black spots corresponding to the follicular openings, which with the aid of a lens were found to be hair stumps, some projecting one or two millimeters above the opening. Inoculation of glucose-agar culture medium with the pus gave rise to a characteristic growth, a dry powder or plaster-like growth of concentric rings. Four different cultures taken at intervals produced two plaster-like growths and two mould colonies of pure white tufts.

CASE 2. M. G., female, aged ten years, referred to me by Dr. Herschler. This case also presented the characteristic follicular abscesses on the scalp with loss of hair, and the presence of black dots on the bald areas representing hair stumps. Pediculosis capitis was present. The multiple abscesses progressed until they reached the size of a lentil when they ruptured and discharged; some going on to complete recovery while in other instances recurrence took place over the area occupied by the original abscesses. New processes also developed in proximity to the first showing a tendency toward extension. The duration of the affection in this case was indefinite.

Cultures were taken using glucose-agar as a medium. The cover glass culture of the first hair, on the tenth day, exhibited a profuse growth composed of matted filaments interlaced in the center of the hair. Those on the margin and the more distant mycelia show frequent branching and segmentation, the segments forming small pear-shaped bodies, distinctly outlined but not separated. Some of the threads of mycelium are tortuous and broader and their branching more frequent. Few spirals were observed, but there were no loose spores.

CASE 3. A. B., female, aged sixteen years, also referred to me by Dr. Herschler. The patient presented a follicular condition of the scalp associated with pediculosis capitis and followed by localized areas of baldness. Recurrences were common on the site of the previous attacks. The treatment was unsatisfactory. Bacteriological study by means of glucose-agar revealed the presence of the fungus in the chlamydospore stage.

CASE 4. R. N., female, aged seventeen years, presented herself with a pustular condition of the scalp which had lasted five months. Examination revealed a number of small, absolutely bald areas characterized by central depressions and on the borders, a few black spots indicating the mouths of the follicles from which short hairs, about one millimeter in length, may be extracted. Microscopic examination shows these hairs to be devoid of sheath and infiltrated with large spores arranged in chains. The lesions were primarily raised or

elevated, and were inflammatory, attaining the size of a pea. On the summit of each lesion, the broken-off hair could be seen embedded in the tissue. New lesions were constantly appearing. Pediculosis capitis was also present as in the preceding cases.

Cultures were made of three hairs, only one of which gave a positive result. This culture exhibited mycelial threads radiating from the hair stump. Segmentation was present but there were no spores. A cover glass culture made a month later showed, after one week's growth, the chlamydospore formation.

CASE 5. S. B., female, aged ten years, came under my observation for a disseminated eruption of the scalp which had lasted six months. Pediculosis capitis was present. A careful study of the case showed that the lesions developed from pustules which eventually became small abscesses and were followed by loss of hair, the hair breaking off within the follicle. Only a few stumps were found; these were examined microscopically showing the mosaic arrangement of small spores, the appearance was not unlike the arrangement of the grains upon an ear of corn and loose spores formed chains. The healing of the lesions presented the appearance of a depressed scar. This patient had been the subject of scarlet fever prior to the onset of this condition.

CASE 6. H. P., female, aged seven years, consulted me for a condition involving the entire scalp which had lasted two months. She gave a history of scarlet fever, and showed unmistakable evidence of pediculosis capitis. Examination of the scalp showed a condition similar in its essential aspects to the condition in the previously mentioned cases. The microscope showed the presence of the fungus. The spores were small and arranged in chains. A pet cat was responsible for the infection.

CASE 7. D. M., female, aged ten years. Localized areas of baldness, on the scalp associated with pediculosis capitis and running over an indefinite period. The presence of the ringworm fungus was demonstrated by the microscope. The spores were small and formed chains.

CASE 8. S. B., female, age twelve, presented the same features as the above. A month ago, a tramp cat with a scalded spot on its back had visited the house for a few days.

CASE 9. R. R., female, aged nine years. Condition same as in the foregoing cases.

CASE 10. S. B., female, aged eight years. Same condition present.



Fig. 1.

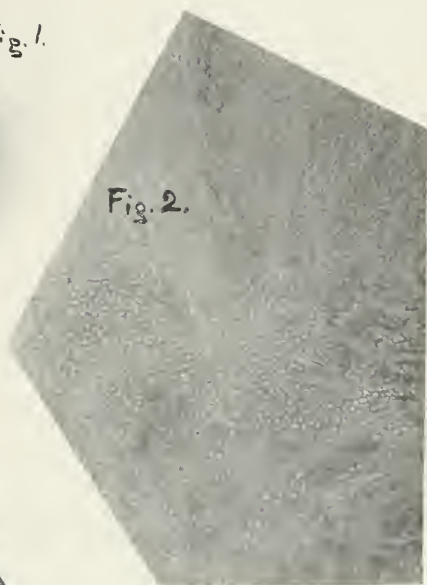


Fig. 2.

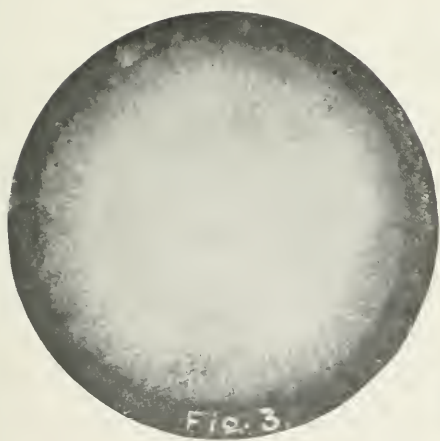


Fig. 3.

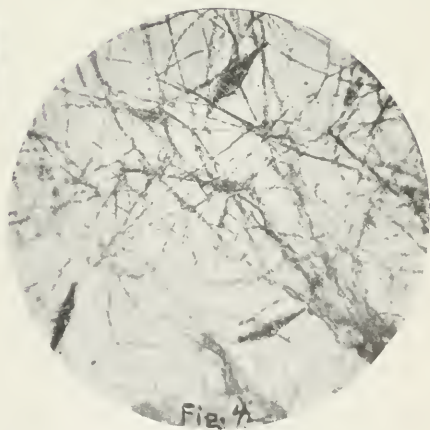


Fig. 4.

Résumé. In analysing the histories of these cases we are first struck by the coincidence that the patients are all girls, ranging in age from eight to seventeen years. In each case pediculosis was present and in nearly every instance the cutaneous eruption was attributed originally to the pediculosis, which was later shown to be erroneous. The clinical appearance presented was similar in each case of the series; the primary folliculitis followed by pustulation, then by rupture and scar formation with temporary alopecia, restoration of hair, the cycle being repeated in many instances. Particularly characteristic was the recurrence of the lesions on the sites of previous lesions. Another feature especially distinctive was the appearance of the black dots at the margins of the lesions, representing the broken-off stumps of diseased hairs. Microscopical examination of the hairs and cultures taken from them, demonstrated the presence of the ringworm fungus. Cases 4 and 5 had been diagnosed as favus and the clinical picture of the above cases with the apparent scarring might readily lead to this error. The microscopical examination, the growth in cultures and the complete recovery without the destruction of the hair follicles, producing permanent baldness, is conspicuous.

It is therefore logical to conclude, in view of these histories and observations, that we have here to do with an unusual type of trichophytosis previously neglected and unrecognized by reason of the associated pediculosis capitis. This series of cases also serve to emphasize the necessity of careful microscopical examination in all scalp conditions. To be sure, the conventional types of ringworm may exhaust themselves after certain ages but the new conditions and environment may only alter the morphological characteristics and the disease persist just the same. This contention, I think, is amply proved by the foregoing cases.

DESCRIPTION OF PLATE.

FIG. 1. Small multiple kerion of two months duration. Many lesions are concealed by the long hair (Case 1).

FIG. 2. A hair digested in a solution of caroid showing chains of spores (Case 6).

FIG. 3. Plate culture from Case 1.

FIG. 4. Chlamydospore formation in a culture taken from Case 6.

CONTRIBUTION TO THE CLINICAL ASPECT AND TREAT-
MENT OF POMPHOLYX (CHEIROPOMPHOLYX,
DYSIDROSIS).

By FRED. J. LEVISEUR, M.D., NEW YORK.

TILBURY FOX, who by his classical description procured for pompholyx an independent position among diseases of the skin, believed it to be simply an affection of the sweat glands, and therefore called it dysidrosis. He looked upon the sago-like, deeply imbedded vesicles, characterized by the absence of an inflammatory zone, as distended and degenerated sweat glands. By the investigations of Hutchinson, Robinson, Williams and Santi, Unna, Martinet, Török, Hoggan, Scholtz, and others it has been proved that the vesicles are formed independently of the ducts of the sweat glands, but that they may communicate sometimes with the latter by encroaching upon them and by the final breaking down of separating walls. The affection is still universally classified under the heading of diseases of the sweat glands, showing that the clinical more decidedly than the histological facts point in this direction. The presence of increased secretion, hyperidrosis, in the vast majority of cases, is easily recognized and forms one of the salient features of the disease. In my fourteen cases, the skin was apparently normal in this regard in only one case; in two cases there was a decided absence of perspiration, and the twelve remaining cases showed hyperidrosis, always marked, but, of course, varying in degree. The presence of ischidrosis, observed also by other authors, seems to indicate that the derangement of the glands need not always be of the nature of an increased activity. If a special pathogenic bacillus should be found and positively identified as the cause of the disease, its relation to the pathological condition of the sweat glands, so clearly brought into relief by clinical evidence, will then be cleared up satisfactorily. According to Unna, this bacillus may lead a latent existence in the thick horny layer of the hands of certain individuals. I have been able to trace the beginning of the disease in one case to handshaking at a reception; in another, to lawn tennis playing, and

in a third, to the use of dumbbells in a gymnasium. Hyperidrosis was present in all three cases, and this, combined with mechanical irritation, probably prepared the way for the infection. The occurrence of repeated attacks, each of about a week's duration, speaks in favor of a microörganism with a life cycle of that length of time.

Frequently new groups of vesicles appear on or around old spots after they are entirely or partially healed. Another fact also points towards a microörganism as the cause of the disease, and that is the spreading from the side of one finger to that of its neighboring one. It is peculiar, it is true, that in most cases both hands are affected, but, by inquiring into the history of the cases, it will be found that the affection usually has started on one hand, and very often there are present a great many lesions on one and only a few on the other. A distribution, even approximately, along the course of certain nerves I have never been able to trace. The manifold causes which produce hyperidrosis, such, for instance, as general debility after various diseases, anæmia, hysteria, neurasthenia, affections of the heart or of the gastrointestinal tract, and the abuse of tobacco, alcohol, or drugs, must be considered only as indirect contributing causes of pompholyx; and the frequent assertion that patients suffering from the latter disease are below par as regards their general health may, therefore, have a more direct reference to the hyperidrosis than to the accompanying skin affection.

The severe itching and tension produced by the lesions and by the sleepless nights, as well as by enforced inactivity and worry caused thereby, have often, quite naturally, a debilitating effect upon the patient. In one of my cases there was present a pronounced neuralgia on the flexor surface of the left arm, extending from the hand to the elbow, but this was very probably produced peripherally by an extensive and very deep-seated and painful lesion on the palm. The statement found in many textbooks that the disease is usually met with during the hot summer months is not true for New York. It seems to be most frequent in spring, but it also occurs in winter.

A peculiar and, as it seems to me, not a very rare occurrence is the shedding of the nails in the course of the disease. I have observed it in two cases, only one finger being concerned in each case, though the skin of several others showed typical lesions. No symptoms of onychia or perionyxis were present, but repeated eruptions had preceded the loss of the nail, extending all along the side of that particular finger. In Julius Heller's well-known monograph on diseases of the nails no mention is made of this occurrence. He quotes,

however, a case of Remak's, that of a woman with a swelling and paræsthesia of the right median nerve, in which the skin of the palm resembled the typical picture of eczema tyloiticum. The skin of the fingers was fissured and finally the nails of both thumbs and of one index finger were shed spontaneously. On another page, in the description of a case of erythromelalgia, he makes the following statement: "During the course of the disease we noticed once the appearance of vesicles which reminded us of dysidrosis affecting the walls of the nails and the skin of the fingers. The patient, predicted the shedding of the nails after the appearance of the vesicles, which, however, did not occur." It seems, then, that in a previous attack the patient had actually experienced such a loss of his nails. Bearing in mind how rarely this shedding of the nails is observed in neuritis and other nervous diseases without the combined presence of lesions of the skin, I am inclined to think that, rather than to changes in the nerves, it is due directly to some deep-seated lesions of cheiropompholyx penetrating to the region of the matrix of the nail. The accompanying colored drawing, made from a cast in one of my cases, shows the characteristic features of cheiropompholyx as well as the manner of shedding the nail. When pompholyx attacks the feet, the lesions are often not so characteristic as they are on the hands. Sago-like vesicles may be seen on the toes or, what is more frequent, on the plantar surface near the heels. They are much more prone to form bullæ, which soon break down, and they impress the observer as patches of ordinary eczema unless a few vesicles remain intact on the border of the affected area. The greatest help, however, in arriving at a correct diagnosis is the coexistence of cheiropompholyx. As a rule, the eruption on the feet is not so itchy or painful or stubborn as that on the hands. I have never seen the disease on any other parts of the body, but it is sometimes associated with sudamina and eczema. Patches of the latter may be found often on the backs of the hands, on the flexor surface of the forearm, or scattered over the lower part of the leg. In consequence of secondary infection the pompholyx spots sometimes become impetiginous in character. Patients with mild eruptions seem to me more liable to numerous successive outbreaks. In others the affection appears every year about the same time with a certain regularity.

The fourteen cases which I have tabulated were all in private patients, eight women and six men, ranging as regards age from eighteen to fifty-six years. This coincides with the observation of Hutchinson, who has never seen it before puberty or in very old

persons. The preponderance of the disease in women has often been pointed out, and it may be greater than my small statistics seem to indicate. In New York the disease is more frequent of late years than formerly and, I believe, of a more severe character.

The treatment is both general and local. In the majority of cases the general treatment should be directed towards combating hyperidrosis. Atropine, agaricin, and fluid extract of *hydrastis canadensis* may be employed. Picrotoxin and ergotine I have used but very rarely, and cannot judge about the efficiency of these remedies. Arsenic, in the form of Fowler's solution or Asiatic pills, has a well deserved reputation both in the treatment of hyperidrosis and in that of cheiropompholyx (Robinson). Beginning with small doses, it has to be given for a long time, four or five weeks, before its good effects are noticeable. It is, therefore, better to start with a medium dose (six drops three times daily) and increase the amount every day by one drop until that of from twelve to fifteen drops has been reached, carefully looking out, of course, for its toxic effects and giving it well diluted with water.

Tilbury Fox emphasized the usefulness of diuretics, which he recommended as a routine means of treatment in the beginning of the disease. He mentions acetate of potassium, ammonia and juniper. I have seen good results from the use of small doses of iodide of potassium, five grains three times a day in a cup of milk.

The more remote causes of the disease require tonics, like iron, alone or in combination with strychnine or quinine. Patients should be warned against drinking mineral waters, milk, beer, or plain water in large quantities. I have tried in vain to connect a new attack with the eating of certain articles of food, and therefore have no basis for recommending special dietetic rules. Coexisting gastrointestinal disturbances should of course receive attention.

The local treatment must be adapted to the particular stage of the disease. In the beginning of an attack mild salves, such as are used in vesicular eczema, I believe to be not only inefficient but decidedly harmful. This is particularly the case when the basis of the salve used is fat, as in *unguentum aquæ rosæ*, *unguentum benzoinatum*, etc. It is advisable to open bullæ if they are present, and empty them of their contents. In order to expose deep-seated foci, it is necessary to use measures which produce maceration and desquamation of the epidermis. For this purpose I prefer prolonged hand baths with very hot water. The addition of corrosive sublimate, 1 to 1,000, increases the effect. Or permanganate of potassium may

be used (one per cent.), followed by ablution with a solution of oxalic acid (two per cent.) for the removal of the dark color. Immediately after the application the skin is dried and then dusted with a powder consisting, for example, of ten parts of oxide of zinc, five of salicylic acid, and five of starch. The patient should wear a pair of white cotton gloves, which should not fit too tight and should be replaced by clean ones as soon as they are soiled. Wilkinson's ointment or salves composed of similar materials, rubbed energetically into the skin, also give good results. I favor the following ointment:

R

Precipitated sulphur and Green soap, each.... 10 parts
Benzoinated ointment 30 parts

M.

After about three days, this treatment, which has the peeling of the epidermis for its object, is stopped. In mild cases it is sufficient to effect the cure of an individual attack, and the continuation of the use of one of the lotions and dusting powders after the symptoms of irritation have disappeared will prevent new eruptions from coming, or at least reduce their severity. In severe cases I have observed great benefit from dusting the skin with xeroform powder, applying a thin layer of cotton and finally bandaging each individual finger with a gauze bandage. The latter remains in place for several days, sometimes for a week. I have also used with good results Unna's gelatin dressing, which renders such excellent service in the treatment of varicose ulcers of the legs:

R

Zinc oxide 17 parts
Gelatin 10 parts
Glycerin 15 parts
Water 55 parts

M.

After liquefying this mixture, it is applied with a brush in the usual manner, and the fingers are bandaged with gauze bandages impregnated with it. This zinc-gelatin dressing may be kept in place for two weeks. Owing to the great mobility of the hands, bandaging is not adapted to the treatment of patches situated on the palms. For

these spots I prefer the use of a ten per cent. salicylic soap plaster (Dietrich's) held in position by a thin layer of flexible collodion painted over it. The plaster is to be renewed daily. This may also be used on spots on the back of the hands and on the wrists.

After the cessation of the attack any remaining eczematous conditions are treated with boric acid, salicylic acid, diachylon ointment, or Lassar's paste.

At the clinics of the University of Berlin the treatment consists in the use of wet dressings with liquor aluminii acetici or boric acid solutions. After acute irritation has disappeared, a solution of resorcin in alcohol, five per cent., is brushed on carefully. This may be followed by the application of a zinc paste containing tar in the proportion of one-quarter to one per cent. Lang, of Vienna, recommends the following dusting powders:

R

Calomel	1 to 4 parts
Venetian talc (or magnesium carbonate)...	20 parts

M.

R

Salicylic acid	5 parts
Tartaric acid and boric acid, each.....	10 parts
Zinc oxide	25 parts
Venetian talc	50 parts

M.

Crocker is in favor of oleate of zinc or lead ointment, which should be spread thick on strips of linen which are to be closely applied, doing up each finger separately. He has noticed, as I have had frequent occasion to do, that bandaging gives great relief from the tingling and tension. Jamieson advocates the use of starch poultices, containing a drachm of boric acid to the pint, as a preliminary to the application of drying and antiseptic powders. Stelwagon is opposed to the use of strong and stimulating applications. He recommends sedative ointments and lotions. They should be employed by means of closely fitting bandages. Once a day the affected parts are cleansed gently with warm water, and every few days the hand is dipped for some minutes in a basin containing a warm solution of sodium bicarbonate. Malcolm Morris treats the local lesions on the lines laid down for pruritus.

Violent exercise, alcohol in excess, or anything tending to promote sweating must be avoided. Leredde is in favor of first opening the larger vesicles with aseptic scissors. After this the parts are bandaged with an inert or astringent powder, for example:

R

Talc	20 parts
Zinc oxide	10 parts
Dermatol	3 to 6 parts

M.

Secondary infection is avoided by the use of mild pastes. Every day or twice a day the sore spots are cleansed and bathed and newly formed vesicles opened with the scissors. When the disease has reached its terminal stage, keratolytic remedies may be applied, or a solution of caustic potash (1 to 500). It is well to powder the hands frequently. Tincture of iodine, repeatedly painted on the lesions, will sometimes cut short a fresh attack. He has seen good results from putting patients on a milk diet, complete or partial, and giving them nitrate of potassium and lactose as diuretics. Between the attacks the patients should eat sparingly and not take much meat.

There are, of course, a great many more details in the description of the treatment of the authors quoted above, and I have mentioned only those points which seemed to me of special importance. The trend of experience seems to have led to a certain uniformity of action. Bandaging is certainly not advocated with a view to protecting the affected parts, but for the purpose of macerating and removing the epidermis, an object which is also aimed at in the use of many of the powders and solutions.

In dispensary practice pompholyx is not rare, but there the disease seems to be of much shorter duration, though individual attacks may be very severe. The rough use which working people make of their hands supplies a natural way of rupturing the vesicles and producing the peeling of the skin which, as we have seen above, are the preliminary steps towards effecting a cure.

TREATMENT OF POMPHOLYX.

Name.	Sex.	Age.	Occupation.	Hyperidrosis.	Ischidrosis.	Localization.	Month.	Number of attacks.	General remarks.
E. C.	F.	25	Housewife	Pronounced	.....	Both hands	Nov.	Second eruption, first three years ago	Cured in two months
R. L. F.	"	18	.....	"	.....	"	Dec.	Eight attacks since 1904	.....
S. G.	"	32	Housewife	Moderate	.....	Right hand, left foot	Feb.	First attack	.....
J. A.	"	31	"	Pronounced	.....	Both hands	March	"	Disease lasted four months
H. F.	"	27	"	"	.....	"	Sept.	"	.....
L. A.	"	23	.....	Moderate	.....	"	March	Second attack	{ Nail on left index shed
H. N.	"	19	Housework	Pronounced	.....	"	Aug.	First attack	{ Duration of diseases, three months
S. W.	"	34	Housewife	"	.....	"	April	"	.....
B. S.	M.	56	Professor	Moderate	.....	"	April	"	Cured in two weeks
G. G.	"	27	Salesman	Absent	Moderate	Left hand	May	Many attacks during six years	Lasted three months
H. S.	"	40	Violinist	"	Pronounced	Both hands, one foot	June	First attack	Cured in three weeks
A. P.	"	28	Broker	Pr onounced	.....	One hand	Jan.	First attack on hand	Had pompholyx on feet three years ago
G. S.	"	27	"	"	.....	Both hands	June	First attack	{ Lasted five weeks
F. B. L.	"	25	Tradesman	Absent	Absent	"	April	Several previous attacks	{ Shed nail of second finger of right hand
									{ Very extensive eruptions.
									{ Cured in three months.

MYCOSIS FUNGOIDES AND THE X-RAY.

By A. J. MARKLEY, M.D., Cincinnati, O.

Clinical Lecturer in Dermatology, Cincinnati Polyclinic and Post-Graduate School

ANYONE who has been obliged to watch, hopelessly and helplessly, the more or less rapidly fatal progress of a severe case of mycosis fungoides, must view with great satisfaction and relief the rapidly accumulating evidence of the fact that in the X-ray we possess if not a certain means of cure at least the most active agent in relieving the tortures and symptoms of this hitherto incurable disease.

For this reason I consider that no apology is required for my addition of this report to an already large and rapidly increasing list of successful cases.

Mrs. S., aet. forty-nine years, height five feet six inches, slender build, fair complexion, previous health always good, gives briefly the following history:

Four years ago she noticed an itching across the shoulders and behind the ears, which persisted and gradually grew worse, but presented no objective signs of disturbance in the skin and was attributed to nervous disturbances attendant upon the climacteric. About one year later the skin began to be rough, dry and harsh, which condition gradually spread until it involved practically the entire body.

During this time her suffering was intense, because of the tormenting pruritus, permitting no sleep or rest and she failed rapidly in strength and weight. Constantly under the observation of physicians, she was treated vigorously for ringworm, eczema, "uric acid poisoning," etc., was sent to various baths and sanatoria, and spent three weeks in hospital, all of which proved of no benefit.

During the following year, rounded, thickened, dusky red patches began to appear over the previously erythematous areas, these continued to increase in size and number during two years, with an attendant increase in her suffering and a corresponding decline in strength and courage.

On May 3, 1905, she came under my care presenting the following appearance and condition:

Thin, nervous and emaciated, skin a peculiar tawny yellow, very dry and rough to the touch.

Over the face, neck, chest, back, shoulders, thighs and lower parts of legs, in fact, over the entire body except the arms and inner surfaces of thighs, were dusky red, indurated, rounded patches varying in diameter from one-half inch to three inches, the intervening skin being dry and harsh. On the outer surface of each thigh near the knee were two nodular tumors, the size of English walnuts, but no fungous or ulcerating growths. Everywhere were excoriations, due to scratching in efforts to relieve the intense and persistent pruritus. The skin of the arms and hands was dry, rough and harsh, showing no infiltrated patches, but intensely itchy. The scalp was dry and glazed and the loss of hair was quite extensive.

Treatment with the X-ray was begun at once, using a soft tube, at a distance of eight inches, exposing each area five minutes, making about twelve different exposures at each séance and two séances a week at first. In addition, mild and soothing antipruritic lotions were prescribed.

After the third week improvement was marked, the pruritus was greatly relieved and the infiltration and redness was much reduced, at the end of six weeks practically all of the patches had disappeared, and the skin was soft and smooth but very deeply pigmented, after this but one treatment a week was administered, and these were directed chiefly against the arms, where the condition of roughness and dryness was much more persistent and resistant to treatment than the infiltrations had been. During the following five weeks the improvement in her general condition and appearance was very gratifying, she was able to sleep, regained her appetite and in the latter part of July went to a country place for recreation, the first she had been able to enjoy in three years.

The points of especial interest are

First—The extremely rapid evolution of the disease.

Second—Its unusually wide distribution.

Third—And most important, the almost miraculous manner in which the condition yielded to X-ray treatment.

EDITORIAL

CUTANEOUS ATROPHY AND EPITHELIOMA FOLLOWING THE USE OF THE X-RAY.

THE brilliant results obtained by the use of Roentgen therapy in mycosis fungoides, rodent ulcer, lupus, etc., are recognized by all, but our knowledge of the action of the ray is not sufficiently definite to venture an opinion upon the counter-indications to its use in dermatoses which are not, in themselves, intractable.

The rapidly increasing number of physicians employing this powerful agent in the treatment of mild cases of acne vulgaris and hypertrichosis in young women, of psoriasis, eczema, lichen planus, etc., justifies a word of warning.

We do know that repeated and prolonged use of the ray, aside from the question of "burns," produces a cellular degeneration in the epidermis, especially in the basal layers; vascular troubles which may manifest themselves as an extreme dilatation or an obliterative endoarteritis, leucocytosis; degenerative changes in muscular, glandular and connective tissues; in fact there may be determined a profound destruction of the constituent elements of the skin causing it to resemble the thinner and pigmented senile atrophic—almost xerodermatous skin.

To obtain a permanent alopecia, which would be necessary for the cure of hypertrichosis, the danger to these elements must be so great as to become self-condemnatory. Telangiectases have been observed after an exposure to the ray of even a quarter of an hour. Fortunately this result requires, ordinarily, prolonged exposures. These results are probably the effect of repeated atonic dilatations which are aggravated by obliteration and destruction of the organs of nutrition.

The severe form of sclerosing atrophy manifests itself by a dryness of the skin which becomes hard and anaemic, with a thin and brittle epidermis, at times becoming scaly as in xeroderma, to which condition it still further resembles by the development of telangiectases, hyperkeratoses and an epitheliomatous degeneration.

The condition of carcinoma developing upon the site of an X-ray burn is rare, but Mendes Da Costa¹ records seven cases of

¹*La Revue Pratique des Mal. Cut. Syph. et Ven.* 1905, p. 224.

epithelioma developing upon lupus cases which had been subjected to prolonged X-ray treatment. This seven out of seventy-one cases treated he considered too high a percentage and renounces the method.

He admits the possibility that lupus may predispose the skin to an epitheliomatous development, since no such results followed in sixty-three other patients treated by the ray for various other affections, but until methods of graduating the dosage shall have become more exact and a knowledge of effects more positive, it seems right to conclude that a prolonged treatment by the Roentgen rays causes an atrophy of the skin, and by this fact, is contraindicated in diseases which demand a number of séances.

CORRESPONDENCE.

To the Editor of THE JOURNAL OF CUTANEOUS DISEASES.

SIR: I beg respectfully that you will afford me sufficient space to criticise in part Dr. Albert S. Ashmead's contribution to Number 272 of your JOURNAL.

Its gist is to prove that the Japanese race is "Negroid."

The dogmatic cocksureness of the means that he employs, places this paper almost entirely apart from those current professionally; hence, a thorough examination of it would be not only unusual but quite impracticable within reasonable bounds.

Dr. Ashmead says:

"Pithecoïd man of East Asia, like the pithecoïd of Central Africa, may have been descended from an ape. Many diseases have come to man in both situations by too close associations with monkeys. I may mention only one undoubtedly originating from that source, anchylostomiasis, the hook-worm disease as it is wrongly called, or uncinariasis (the former term is much better). In ages of time, it has produced Oriental lethargy, now accepted as typical of mankind there. Beriberi, too, is a disease of monkeys."

Here a surmise as to the origin of human anchylostomiasis serves him every purpose of a fact. But not even a first-year medical student nowadays needs to be told that there is not a scintilla of evidence to support Dr. Ashmead with regard to this alleged "undoubtedly originating" (from monkey to man) disease. Strong reason for rejecting his assumption forthwith is afforded by the fact that the fur seals in Alaska have in recent years suffered severely from anchylostomiasis. One cannot imagine any professional person of this age seriously ascribing

this misfortune of fur seals to their "too close associations" or to other improper relations either with monkeys or with men. Neither is it probable that anchylostomiasis has produced Oriental lethargy, although it may have undeniably contributed. Following these statements, the diction is obscure enough to relieve him of the charge of dogmatizing to the fullest possible extent regarding the origin of beri-beri; and he can find further safety in the fact that, inasmuch as almost nothing at all is known of the real nature of beri-beri, numberless surmises relating to it may be indulged in.

The flat contradiction in terms about the Argentine coast provinces and its littoral, would appear to be merely an error of inadvertence.

It is in the furtherance of his main contention, however, that his summariness appears with the least constraint. Thus, he calls the Mikado's ancestry incestuous, apparently merely because he and all of his predecessors have been descended from only "five great *daimio* families of white Indonesian blood." He points out carefully that the Prince Imperial's mother is a high-class concubine, in order to illustrate the infecundity of these inbred families: yet he neglects to mention both the fecundity of this prince's marriage and a recent law of Japanese succession that aims to discourage concubinage by making its issue ineligible.

Prof. Baelz, who is probably the most highly honored of all professional men by Japan, and who was for years one of the faculty of the Tokio Imperial University, is to Dr. Ashmead but a German physician; husband of a Japanese woman; father of half-breed (Euro-Japanese) children; and one "who was director of a clinic in Tokio." (Dr. Ashmead is himself responsible for his own title: "Late Foreign Medical Director of Tokio Hospital, Japan.")

Similarly, the unwary would necessarily be led to infer that the Minoreans in our Southern States (not alone in St. Augustine, Florida, as Dr. Ashmead says, or seems to say), were *all* "descended from the old Negress of Spain, whom Dr. Trumbull married and brought to America with him." It is a matter of history that Dr. Trumbull brought quite a number of Minoreans to America; and few lovers of history (that is still almost altogether that of war) will need to have these emigrating Balearic Islanders identified with the soldiers *d'élite par excellence* of the earth for many of the centuries preceding firearms and printing-presses. To call Dr. Trumbull's wife that accompanied him to Florida a "Negress" is as cheap (and as scientific) as is the local, vulgar nickname "Trumbull's niggers" of the Minoreans in the South. It is only employed by the rabble there, whom these Minoreans almost invariably excel.

But a sufficient number of the errors of this writer have been pointed out, to render anyone chary of accepting his deductions in essential

matters, even if the facts (and surmises) that educe them were not open to the grave objection that they were not collected for the purposes for which he employs them.

While it is an unpleasant voluntary task, still it is an important one to point out that such methods of advocacy as we have criticised are well-nigh absent from every other branch of scientific research to-day, save medicine alone.

Perhaps no general charge against scientific men has been as undeserved as was that of the late Duke of Argyle to the effect that they made the results of their experiments fit in with their own preconceived opinions. Undoubtedly it is the prevailing faith in the scientific worker's trustworthiness in excluding errors and in testing exhaustively his final results before submitting them for incorporation into classifiable information that has made his figure the central one of our age. It is not the least of the glories of the science of to-day to have freed herself from the thralldom of subserviency to individuals' beliefs.

W. F. ARNOLD, M.D.

REVIEW of DERMATOLOGY AND SYPHILIS

Under the Charge of JOHN T. BOWEN, M.D.

INFLAMMATIONS.

By H. P. TOWLE, M.D., Boston.

Lichen Spinulosus. LEWANDOWSKY. (*Arch. f. Derm. u. Syph.*, 1905, lxxiii., p. 343.)

According to the author the literature of this affection is entirely English, as the disease is practically unknown to French and German authors even by name. Lewandowsky describes a case with histological findings which is particularly interesting because he had an opportunity to observe the disease from start to finish. October 12, 1902, a girl of nine was admitted to the hospital for kerion. At this time there was nothing upon the skin elsewhere, but on October 23 a symmetrical eruption was noticed on the body over the breast, abdomen and the back down to the ileum. This eruption was composed of small, intensely red papules of the size and shape of the head of a pin, which were firm to the touch, some of which bore a shiny epidermic scale in the center, and

some a small pustule. From these pustules a small drop of pus could be expressed which showed under the microscope pus cells and detritus, but no bacteria. Cultures made from the pus remained sterile. The eruption was markedly follicular, but varied in its arrangement on different parts of the body. While on the breast and abdomen nearly every follicle was affected on the sides and back, the papules were fewer and more scattered. The skin between the affected follicles was normal. The eruption spread gradually so that in a week it had extended over the gluteal region on to the thighs. Here it showed a tendency toward grouping and formed patches varying in size from a one to a three mark piece. As there was no itching or other subjective symptom no treatment was given in order that the course of the disease might be watched. At the end of the second week the papules, especially over the upper part of the body, began to grow paler, and at the same time there began to form in its center a projection or spine, one or two mm. long, slightly crumpled, and somewhat hard which gave the sensation of a grater to the hand when stroked. From this time on the eruption declined gradually, the upper part of the body clearing first. The redness disappeared first, and finally the spines, so that when the patient was discharged, January 18, the skin of the body presented nothing abnormal. Lewandowsky excised for histological examination pieces of the early papular eruption, and another of the spine-bearing eruption. As a result of the microscopical examination he concludes that in this disease we have to do with an inflammation of the follicle, with a secondary parakeratosis. He found three stages histologically which he says correspond to the three stages observed clinically. First there is an œdema of the outer hair sheath with spongy cells, such as are often seen in other diseases. Next a cavity is formed in the central portion of the follicle with degeneration and liquefaction of the epithelial cells. White blood cells invade the wall of the follicle and also collect in the central cavity so that we may speak of an intra-follicular pustule formation. Clinically these pustules remain latent, but as in this case become microscopically visible. That the pustule is primary is shown by its sterility. Now, by the spreading outward of the cavity and by the increased inward pressure the epithelial cells lining the follicle become flattened. Although the walls of the follicle may become so infiltrated that scarcely a cell can be recognized there is never destruction of the surrounding connective tissue. The parakeratosis of the opening of the follicle may block the canal and prevent the exit of the hair, but as a rule this does not occur. In the further development of the disease the contents of the pustules are absorbed and the parakeratosis, which until now has been limited to the mouth and neck of the follicle, involves the whole inner sheath and forms a lamellated sheath about the hair. New masses are continually produced which gradually push the older formation upward out of the follicle to form the projecting spines which are so characteristic of the disease.

Erythema Infectiosum. HEIMANN. (*Arch. f. Kinderh. Berl.*, 1904., lx., p. 421.)

During the spring and autumn Heimann saw ten cases, in all of which the eruption occurred on the typical places. The eruption began on the face and thence spread downward. Ordinarily the cheeks were diffusely red, and on the periphery of this redness were many small red spots. The mouth and forehead remained exempt. The parts most markedly affected were the face, then the extensor surfaces of both upper and lower extremities and the nates. The flexor surfaces of the extremities and the trunk were only sparsely, or not at all, affected. In a few cases only was there any eruption on the neck. The eruption on the extremities strongly suggested measles and was made up of bluish-red or rose-red spots, from a pin's head to a pea in size and slightly elevated above the skin. Where the eruption was not pronounced on the extremities the spots formed a net work. In one case the leg was diffusely red and infiltrated. In two cases there was an eruption on the tonsils and buccal mucous membrane. The general condition of the patients was not affected, although in one case there was a slight rise of temperature. The duration of the rash was about eight days. In several cases several members of the family were affected one after another. In the differential diagnosis measles and erythema multiforme are to be considered.

Erythema and Urticaria, with a condition resembling angioneurotic oedema caused only by exposure to the sun's rays. WARD. (*N. Y. Med. Jour.*, 1905, lxxxi., 742.)

This rather remarkable case occurred in a woman of forty-seven. When three years old she had scarlet fever. She has had several attacks of lumbago and of muscular rheumatism, but has never had acute articular rheumatism. The patient has always been "nervous," although apparently very calm. The menopause began in 1900 and is only just now completed. She has faint feelings without dizziness. No serious indigestion, but has more or less gas in the intestines. There is a moderate cardiac hypertrophy but no murmurs. Occasionally there is a double beat followed by an intermission of which she is conscious herself. June 1, 1903, while working in the garden there appeared on both arms and on the back of the neck markedly elevated white patches and streaks with severe itching and burning. Similar eruptions appeared on various exposed places at shorter and shorter intervals until in the autumn of 1903 the itching began to come on almost every time she went out of doors. The eruption always came upon those portions of the body which were entirely exposed or were under only one thickness of clothing. If the patient remained out of doors more than an hour the eruption gradually disappeared. In the house the eruption lasted from ten minutes to one hour according to the length and degree of exposure. In November, 1904, the patient voluntarily exposed herself for purposes of demonstra-

tion. The exposed parts became a brilliant scarlet with swollen skin and intense burning. There were also scattered wheals from a pin's head to a dime in size. The symptoms subsided gradually, and in an hour nothing remained but dilated capillaries. January 18, 1905, the bare arm was exposed for ten minutes to the X-rays without result. January 23, after an unusually long exposure to the sun, the lips became so swollen as to be uncomfortable. Heat alone, Ward says, does not seem to be responsible, for the patient can sit by the hour before a wood fire without ill results.

Erythema Nodosum, On a persistent form of. PICK. (*Archiv f. Derm. u. Syph.*, Dec. '04, lxxii., p. 361.)

Under this title Pick discusses the relation of erythema nodosum and erythema induratum to each other, and reports two cases to illustrate. Both cases were in young women. In the first case there was no evidence of tuberculosis either in the history or the examination. In the second case there was no tuberculosis in the family history, but at thirteen the patient had rheumatism with a following paresis of the face and has always been pale and delicate. During the last two years she has also complained of loss of weight, weakness and night sweats. The lungs were negative on examination. There was no reaction to 5 mg. of tuberculin but to 10 mg. there was a marked general reaction, but no local. In both cases the present disease had persisted for a long time, and in both began with a sudden swelling of the legs. Later there was a sub-acute development of nodes in the subcutis with but slight involvement of the skin. According to the history obtained in the first case pea sized vesicles appeared over the earliest nodules. In both cases some of the nodes persisted and some were absorbed. In both Pick made a diagnosis of a persistent form of erythema nodosum. Histologically the two cases were alike. The changes were limited to the subcutaneous fat tissue and consisted of an ill defined infiltration with evidences of atrophy of the fat tissue. The inflammatory changes were slight. A more striking change was a mesarteritis which led to a narrowing of the lumen of the vessels. This vessel change and the atrophy of the fat tissue, says Pick, are completely analogous to the pictures found in typical cases of erythema nodosum. The one unessential difference in his cases was that the œdema and leucocytic infiltration were less marked. On the other hand the picture presented by his cases also agrees with that found in some cases of erythema induratum. He then compares his two cases with many of the reported cases of erythema induratum. Audrey, he states, concluded that erythema induratum was not tubercular but was, rather, a chronic, sometimes ulcerative, form of erythema nodosum forming this opinion from a case which Pick considers to be identical with those reported by him. Leredde allied the disease with tuberculosis. Thibierge and Ravaut thought that the histological findings in their cases pointed

to a primary embolic process. Pick then quotes others who have also found evidences of a thrombosis or a narrowing of the lumen of the vessels. In summing up the histological changes found in these cases of erythema induratum he says that there was always present an atrophic process in the fat tissue, giving rise to the formation of giant cells and other cells of an epithelioid type and also that there were always present changes in the vessels showing as thrombosis and inflammation of the vessel walls with growth. The fact that in his cases the change in the vessel walls and the inflammation occurred independently points, in his opinion, to the vessel change as the primary factor. Around such thrombosed vessels necrosis and even caseation may occur, he says, which would explain why the process is so often considered tubercular. Pick next divides the cases of erythema induratum which have been reported into two histological groups. In the first he includes those cases in which there were no tubercular changes. In the second group he places the cases in which there were found cells which resembled giant and epithelioid cells, but which, nevertheless, must be referred to the atrophic changes in the fat tissue. He also divides the cases into two clinical groups. In the first group an œdema develops from a mild erythema and, with increasing induration, extends to the fat tissue where it persists in the form of firm nodes. In the second group of cases many of the nodes arise in the skin gradually, indurate the subdermal tissue and sooner or later ulcerate. There is much evidence, in Pick's opinion, to show that this group occurs in individuals who either have a tubercular history or who are themselves tubercular, most frequently showing evidences of scrofuloderma. The cases which form the basis of this paper are placed in the first group. He considers that from the symptoms, the localization and the anatomy these cases offer the greatest analogy to erythema nodosum and that as a persistent type of which they may be compared to erythema induratum on a tubercular foundation.

DISEASES OF THE SEBACEOUS AND SWEAT GLANDS.

By HERMAN G. KLOTZ, M.D., New York.

Acne Telangiectodes (Kaposi): Acanthosis (Barthelemy). WALTHER PICK.
(*Archiv f. Derm. u. Syph.*, 72, 2.)

In the two cases reported by Pick there was observed in patients free of any tuberculous taint an affection of the skin of mostly symmetrical arrangement, beginning and principally located in the face. It consisted of small nodules which were partly transformed into pustules, partly disappeared by spontaneous absorption. The pustular lesions leave depressed scars similar to those of acne varioliformis. The disease is eminently chronic, extending over many months by the constant recurrence of new lesions. Histologically, a granulation tissue rich in epithelioid and giant cells is present, which gradually becomes defined from

the surrounding tissue by a connective tissue membrane; later on inflammatory processes commence in the center leading to abscess formation. After a review of a number of similar cases reported by others, Pick concludes that:

First—Acne telangiectodes is a disease *sui generis* and not identical with lupus follicularis disseminatus.

Second—That it is identical with Barthélemy's acnitis, an affection to be distinguished from folliclis.

Third—That etiologically it is not related to tuberculosis and therefore has to be eliminated from the tuberculous and tuberculide groups.

Fourth—That it does not originate from the sebaceous follicles and, therefore, has to be excluded from the acne group; possibly the prominent participation of the sweat glands in the inflammatory process suggests important relations of the glands to the origin of the disease.

The frequent occurrence of sebaceous glands on the labia minora.—

État ponctue. ERNST DELBANCO. (*Monatsh. f. prakt. Derm.*, xxxix., 652 and 657; xl., 87.)

Further investigations have demonstrated that the presence of small yellow nodules on the inner surface of the prepuce, which are easily recognized as unattached sebaceous glands similar to those found in the mucous membranes of the mouth (see JOURNAL OF CUTANEOUS DISEASES, 1904, p. 492) are by no means rare. The author is inclined to assume that these formations of sebaceous glands as well on the prepuce as on the lips and cheeks are due to certain irritating conditions such as exist in sexual neurasthenia (frequent inspection and handling of the organ, phosphaturia and oxaluria) and in syphilis (effects of mercurial treatment on the mucous membranes of the mouth.) He is convinced that in a number of cases the yellow granules did not appear until after mercurial treatment. He reviews the older investigations of Koellicker, Stieda, Waldeyer and others as well as the results of his own microscopical work and comes to the conclusion that the yellow granules are due to the postembryonal development, independently of hair, of unattached sebaceous glands. Similar conditions are found on the labia minora of the vulva. The question of the occurrence of such independent glands is then considered at length. A few remarks on the structure of the papules of the corona glandis and on the formation of pointed horny cones, which are occasionally found on the top of these papillæ concludes the paper.

The function of the sebaceous glands. A. BUSCHKE and ARTHUR FRANKEL. (*Berl. Klin. Woch.*, 1905, No. 12.)

The physiology of the sebaceous glands has hardly been investigated; their wide distribution over the body and particularly their unmistakable relations to puberty suggest some connection between the glands and the general organism, which may be elucidated by more exact

definition of their function. Generally we know as an abnormal function a hypersecretion, seborrhea, but it is uncertain whether the pathological conditions which accompany the same (eczema seborrhoicum) are due to local (parasitic) influences or to anomalies of metabolism. The question is also considered whether the formation of fat in the glands is due to a fatty degeneration of the cells or to actual secretion; nor have chemical investigations given any definite results. Experiments made upon the anal glands of the goose cannot be applied to the sebaceous glands of man on account of important differences between these glands. One of the authors had observed, incidentally to some experiments, an increased secretion of the glands of Meibom in rabbits, which after fatal doses of physostigmin had been kept alive by artificial means. Following up the observation by a number of experiments Buschke claims to have shown that physostigmin can effect an increase of secretion of the glands of Meibom, possibly indirectly by affecting the smooth and striped muscular apparatus. The histological conditions found in these experiments render it highly probable that the sebaceous glands of the mammalia secrete fat and that the degeneration of the cell itself is essentially a secondary process. Further physiological investigation has shown that under particularly favorable conditions alimentary fat can possibly be eliminated by the sebaceous glands.

Adenoma sebaceum disseminatum. FELLÄNDER. (*Archiv f. Derm. u. Syph.*, 74, 203.)

Anatomy and clinical appearances of so-called adenoma sebaceum. FRANZ POOR. (*Monatsh. f. prakt. Derm.*, xl., 379, April 1905.)

Two more cases of the so-called adenoma sebaceum, Pringle type, are reported in these papers. Both occurred in females, were not congenital, but began in early childhood and developed particularly during puberty; the characteristic clinical features are isolated or closely grouped but never confluent hemispheroidal nodules, from pinhead to pea-size, of a bright red color and painless. Felländer's patient also presented several fibromata mollusca on the back, fibromatous tumors around the nails and a pigmented nævus of the epigastric region. Histologically Poor describes the nodules as formed by the increase in numbers and crowding (in some instances with increase of size) of the lobules of the sebaceous glands without any preceding or concomitant inflammatory symptoms. Felländer's histological examination showed that the nodules on the face were principally formed by a hyperplastic connective tissue, rich in cells and traversed by numerous dilated blood vessels; the sebaceous and the coil glands were both considerably hyperplastic and dilated, but in a more pronounced manner in the surrounding tissue than in the nodules themselves. Felländer, therefore, comes to the conclusion that the clinical picture of adenoma sebaceum may be produced by the

proliferation of the various tissues and organs of the skin (connective tissue, blood vessels and glands) in the most variable combinations as shown by the different histological descriptions given by different authors. Both authors agree that the name adenoma sebaceum is not justified, and that these cases represent an anomaly belonging to the nævus group. With identical histological features Poor distinguishes two groups: nævus sebaceus symmetricus (disseminatus, mostly restricted to the face) and the nævus sebaceus circumscriptus asymmetricus, which may occur on any part of the body.

ATROPHIES.

By HENRY G. ANTHONY, M.D., Chicago.

Report of the Fifth International Congress of Dermatology. WHITFIELD.
(*Brit. Jour. Derm.*, 1904, p. 416.)

Whitfield says that among the patients presented to the Congress was: "A man with large sheets of atrophic skin on both sides of the abdomen and on the front of the thighs. The disease was apparently congenital, and on close examination appeared to me to be due to a widespread angioma which was undergoing continuous atrophy."

Heller said that the microscopical examination supported this view. There are only a few of the text books which state that central atrophy sometimes occurs in angioma. This case is an extreme example of this form of atrophy.

Atrophoderma erythematosa maculosa or lichen planus atrophicus.

WECHSELMANN. (*Derm. Zeitsch.*, 1904, II., p. 28.)

The author has reported this case twice. In the first report he seems to think that idiopathic atrophy of the skin is the same as lichen planus atrophicus.

In the second report (*Archiv f. Derm. u. Syph.*, Vol. 71, p. 311), he neglects to mention the fact that he has already reported the case, and he settles on the diagnosis lichen atrophicus which is probably correct. The case is of importance as it illustrates how easily an inexperienced clinician might mistake idiopathic atrophy of the skin for lichen planus.

The patient gave the following history: He was thirty-five years old, and had always enjoyed good health, except a rhinitis with discharge of pus into the nose from which he had suffered for some time. He presented spots on the face which were pea-size and larger, they were red on the periphery and white in the center, they were not elevated. In some places there were pitted scars surrounded by pigmentation. The scalp lesions were simply red spots showing no atrophy.

Further examination revealed the presence of some papules on the back which clinically and microscopically presented the customary find-

ings of lichen planus. Without these lesions the author would not have made the diagnosis.

Hemiatrophia facialis progressive with unilateral pigmentation of the other side. VOLHARD. (*Munch. Med. Wochensch.*, 1903, p. 1109.)

The patient was seventeen years old, he had hemiatrophy of the left side of the face, the skin of which was not involved except for the presence of one suspicious scar. The left side of the body showed extensive areas of dark brown pigmentation.

Haemochromatosis of the skin and abdominal organs in idiopathic atrophy of the skin with erythrodermia. KREISSL. (*Archiv f. Derm. u. Syph.*, Vol. 72, p. 227.)

The patient, who was sixty-seven years old, had had a peculiar condition of the skin for two years and for several weeks he had suffered from dyspnoea, cough, palpitation of the heart and nausea.

The skin lesions were of especial interest, consisting of diffuse dark brown pigmentation, especially suggestive of Addison's disease, but there was no pigmentation of the mucous membrane of the mouth. Both Kaposi and Mrácek diagnosed the case as erythrodermia.

At the time of the post mortem, there were present some spots in various locations which were well defined, of geographical outline, whitish yellow in color and about dollar size. The surface of these spots was somewhat scaly, shiny, the skin covering them was paper thin, and they were pigmented.

Microscopical examination showed that there was an inflammatory exudate in the outer zone, the absorption of which produced atrophy and pigmentation which gave the iron reaction. The lymph glands and abdominal organs also showed hæmatochromatosis.

There was present, empyema of the lungs, pleural and pericardial adhesions, cardiac hypertrophy, mechanical hyperæmia of the visceral organs, hydro-thorax and enlarged spleen caused probably by gastrointestinal auto-intoxication.

TREATMENT OF SYPHILIS

By WALTER C. KLOTZ, M.D.

Inter-muscular Injections of Mercury in the Treatment of Syphilis.

H. G. KLOTZ. (*N. Y. Med. News*, April 29, 1905.)

While forty years have elapsed since the treatment of syphilis with mercury injections was first introduced by Scaerenzio, and while in the meantime this method has been generally adopted on the continent, it has never been accepted with the same degree of confidence by the majority of the profession in this country as a routine method of treat-

ment. In consideration of these facts, and in order to place it upon a more established basis, the author chose this subject for a discussion before the New York Academy of Medicine (stated meeting held January 19, 1905). In this paper he refers to the different preparations of mercury which have been employed for this purpose, and also touches upon certain controversies on this question, which he believes may have some bearing upon the fact that this method has not found more favor in this country and which may account for the fact also that most American text-books either discuss the method very briefly, or on the other hand, express an unfavorable opinion. Opposed to these ultra-conservative views, is the author's experience with mercurial injections in the treatment of syphilis, during a period of nearly twenty years. His records covered 2500 injections in 204 patients. Most of these injections were made with the salicylate of mercury which he has found to be the most satisfactory preparation. The patients were of all ages, of various occupations and different nationalities, the majority occurring in private practice, thus sustaining the author's contention that this method is equally applicable in the cases of more sensitive and nervous individuals, it having been claimed by certain authors that the injection method was so heroic that it could be applied only in the case of hospital and dispensary patients. On the other hand the author does admit that unpleasant effects are noted in a small number of instances; thus out of 2500 injections, abscess was noted four times. In two cases, severe salivation followed injections of mercury. Embolism was observed twelve times. In none of the cases was it fatal or accompanied by any serious manifestations. In spite of careful observation in this regard, no deleterious effects were noted upon the kidney. In regard to the method of administration, he favors giving the injections in series of ten, at longer or shorter intervals. In conclusion, he believes as a result of extensive practical experience, that the injection method of treatment is not only safe and effective, but that it is equally acceptable to the patient and that it ought to be more generally recommended and more generally employed.

Intra-venous Injections in the Treatment of Syphilis. BARTHELEMY and LEVY-BING. (*La Syphilis*, Feb., 1905, p. 103.)

None of the various salts hitherto employed for intra-venous injections in syphilis has been found satisfactory; the cyanide was too toxic in its action, the sublimate coagulated albumin and the others were unreliable in their action or unstable compounds. A mercury salt suitable for intra-venous injections should possess the following qualities; it must be completely soluble, it must not coagulate albumin, it must not be too toxic, it must be stable in solution, it must contain a fixed and known quantity of mercury, and it must be capable of being readily sterilized. As a result of careful study, the authors found that the biniodide fulfills all these conditions. It contains forty per cent. mercury and is easily prepared.

They have also employed the cyanide and the sublimate. In their clinical experiments, they employed 408 injections in thirty patients. In two they used the oxycyanide, in five the sublimate, in seventeen the sublimate, and in five both the sublimate and the biniodide. All the patients were women, suffering with various types of syphilitic lesions. They carefully describe the technique of intra-venous injections, which apparently is less difficult than would at first be supposed. Various anatomical situations were chosen. As a rule, however, the veins at the bend of the elbow are best adapted to this small operation. The doses employed were as follows: Oxycyanide, .01 gm.; sublimate, .01—.02 gm.; biniodide, .1—.02—.03 gm.; dissolved in one c.c. of water. The intra-venous injections were invariably painless but in some cases difficult on account of the veins being concealed in the subcutaneous connective tissue. In a small number of cases, unpleasant consequences were noted. Those of a local character were; ecchymoses, subcutaneous œdema, the formation of nodosities, periphlebitis, and the formation of scars. The general unpleasant consequences were referable to the toxic action of the mercury such as: salivation, stomatitis and diarrhœa. In conclusion, the authors believe that intra-venous injections are of service in those cases where it is necessary to obtain a very rapid action, but in which it is necessary to avoid any pain. In other respects the intra-muscular injections fulfill all indications and produce the same results.

Chancre of the Lip. CHAS. M. WILLIAMS. (*N. Y. Med. Record*, Feb. 25, 1905.)

The author reports the histories of four cases of chancre of the lip, not that there was anything remarkable in the cases themselves, but for the reason that all four cases occurred in the same clinic, within a period of four and a half months, and with the object of pointing out the great danger of accidental infection as a result of the ignorance or carelessness of the affected individual. This being due in the author's opinion to the too prevalent custom of classing syphilis as a venereal disease. For this reason when syphilis does occur extra-genitally, its true nature is frequently not recognized until the patient has infected numerous other individuals with whom he has come in contact, either directly or through the medium of articles used by himself in common with others. In none of the author's above cases, could the exact means of infection be determined.

SYPHILIS OF NERVOUS SYSTEM.

By J. M. WINFIELD, M.D., Brooklyn.

Tabes dorsalis and its relation to syphilis. LESSER. (*Berliner Klin. Wochensch.*, Jan., 1904.)

Lesser discusses the connection between locomotor ataxia and syphilis from the pathological side of the question and attempts to bring further and stronger post mortem proof that tabes is of syphilitic origin.

He says that twenty-eight per cent. of deaths from tabes in people over thirty-five years of age showed signs of syphilis; while in those over thirty-five years of age dying from other diseases only nine and five-tenths per cent. showed evidence of having had syphilis.

In answering the question if tabes should be regarded as a direct syphilitic affection where the connection can be ascertained; he discusses the pathology of syphilitic lesions, and classifies them as follows:

First—Papular inflammations. Second, gunmatous inflammations; and, third, interstitial inflammations which he calls “quaternary manifestations” affecting only internal organs. Tabes he places among the quaternary manifestations. He answers the argument that tabes does not react to mercury and potash by explaining that none of the quaternary manifestations do. He answers each argument effectually and concludes by emphasizing the coincidence of tabes and aneurysm. Every fifth patient suffering from tabes showed signs of aneurysm, and histologically the majority of aneurysms are interstitial syphilitic manifestations, hence, he considers his belief in the syphilitic origin of tabes to be correct.

Syphilitic manifestations in tabes.—*Les accidents syphilitiques pendant les tabes.* DALOUS. (*Revue de Medicine, Paris, xlii., p. 563.*)

The author gives the history of twenty-one cases of syphilis occurring in the course of tabes; six were original and heretofore unpublished; ten of the number did not know that they had ever been infected with syphilis; the author thinks that if all syphilitics were examined for incipient tabes and all tabetics for syphilis the co-existence of the two diseases would be found more frequent.

Tabes. (*Presse Medicale, Paris, p. 1320; April, 1905.*)

DeMassary reports the symptoms of two patients who applied for relief from aortitis; on examination they were found to have incipient tabes. He also gives the history of similar cases where the vascular affection led them to consult a physician and they were found to be in the early stages of general paralysis. The author urges the careful and minute investigation of the nervous system of each and every case of vascular affection of possible syphilitic origin.

Tabes. (*Medicinskoe Obozryenie, Moscow; p. 432.*)

P. A. Preobrazhensky, claims that all research and study tends to show that there can be no tabes without syphilis, and he is of the opinion that preceding anti-syphilitic treatment has little, if any, power to prevent the development of tabes. From his own experience as well as that of many others it has been shown that this nervous disorder may result after and even simultaneously with a thorough and persevering anti-syphilitic treatment. He gives the history of a case of tabes in a child of twelve whose mother was under treatment for cerebral and spinal syphilis, the tabes developing nearly simultaneously in mother and child.

Tabes. (*Achives für Psychiatrie und Nerven Krankheiten*, Vol. 39, 1904; Part 1.)

Rentsch reports two cases of dementia paralytica combined with brain syphilis. In the first case, the vertebral, basilar, and the two anterior cerebral arteries were the sites of typical arteritis gummatosa, and the cortex showed the diffuse degenerative alterations which are to be regarded as a pure primary disease of the type of paralytic dementia. In the second case a gumma was found at the base of the brain and the hemispheres also showed the typical lesions of dementia.

Tabes. (*Achives für Psychiatrie und Nerven Krankheiten*, Vol. 39, 1904; Part 1.)

Keefer reports in full a case of syphilis of the convex portion of the cerebrum associated with gumma of the pituitary body and multiple gumma in a cirrhotic liver. The somewhat lengthy report was for the purpose of drawing attention to certain pathological findings and the histological investigation of diseased organs, especially in relation to the differential diagnosis between tabes and syphilis.

BACTERIOLOGY AND PARASITOLOGY.

By A. D. MEWBORN, M.D.

THE SPIROCHÆTA PALLIDA

Under the heading of Etiology of Syphilis, *The Scottish Medical and Surgical Journal*, September, 1905, publishes a critical summary by T. Shennan, M.D., F.R.C.S., Pathologist to the Royal Infirmary, Edinburgh, which so thoroughly covers the literature of a discovery which promises to be epochal, that we take the liberty of reproducing it in full:

"The discovery of the cause of syphilis has been many times confidently reported. As Lassar remarked, during the discussion which followed the reading of the paper by Schaudinn and Hoffmann at the Berlin Medical Society in May, '125 causes of syphilis have been established during the last twenty-five years.'

"We are concerned here with the latest of these discoveries, one which gives strong hope that at last the search for the cause of this ancient and ubiquitous disease has been successful.

"The credit for the discovery lies with Schaudinn and Hoffmann, whose first paper appeared in the *Arbeiten aus dem kaiserliche Gesundheitsamte* (1). Later they gave fuller details in the *Deutsche med. Wochenschr* (2), and *Berliner klin. Wochenschr*, (3, 4, 4a, and 4b), and from these papers the following description is compounded.

"The authors draw attention to micro-organisms of the genus Spirochæte, which they have found in primary and secondary syphilitic

lesions, not only at their surface, but also in their deeper parts, and in the corresponding lymphatic glands. They saw them living—they remain alive for several hours in physiological salt solution—and also in smears from the tissue-juice, fixed in absolute alcohol, and stained by a modification of Giemsa's method.

"Schaudinn holds that *Spirochætes* are related rather to the protozoa than to bacteria, and hence must be clearly distinguished from the spirilla.

"He describes two varieties, one found only in syphilitic lesions, the other saprophytic in nature, and constantly met with in stagnant secretions, such as occur about the genitals.

"The former, which he names *Spirochæta pallida*, is extremely delicate, very weakly refractile, vigorously motile; stained with difficulty and seen with difficulty, very high powers of the microscope—1-12th oil immersion objective, with medium to No. 8 ocular being required. It is long, very thin and filamentous, spiral or cork-screw shaped, with pointed ends. In length it varies from 4 to 10 μ ; its breadth is difficult to gauge, being at most about 0.25 μ , the turns in the spiral number 6 to 14, averaging 8 to 10. They are not only numerous, but very narrow, regular, and deep. Some writers describe a nucleus, but this fact is not yet absolutely proved. It progresses by rotating on its long axis, and when at rest it shows undulatory movements in its whole length, suggestive of the play of a vibratile membrane.

"The second he names *Spirochæta refringens*. It is larger, refractile, the turns of the spiral flatter, wider, and more wavy or undulating than cork-screw shaped. It stains well with Giemsa's agent.

"In addition to the difference in refractile power and general configuration the *Spirochæta pallida* differs from all hitherto described *Spirochætes* (*Spirochæta Obermeieri*, *anserina*, *Ziemanni*, *buccalis*, *refringens*, etc.) in its extraordinarily slight colorability with all stains which can be used for its detection. Moreover, the worker may have to spend at least an hour over a smear before a *Spirochæta pallida* rewards his patient search.

"*Method.*—Hard sores were excised, cut into from below, the fluid expressed, and smears made, or groin glands were punctured with a hypodermic syringe and the small amount of fluid so obtained was treated similarly. It is known that the fluid from these indolent glands is infective (v. Rinecker and Bumm 6), hence it was hoped that its examination would disclose the cause of syphilis.

"In their first paper (1) Schaudinn and Hoffmann report that they found *Spirochæta pallida* in the surface lesions in 7 cases of uncomplicated primary and secondary syphilis, and in 4 out of 5 cases of syphilis with complications, in 3 of which it was associated with *Spirochæta refringens*.

"In 8 cases of undoubted syphilis (2) the *Spirochæta pallida* was demonstrated in 6 smears from excised glands or in fluid obtained by

puncture. In 4 cases complicated with gonorrhœa, papillomata, soft sore, and balanitis, in which, however, the glands had the characters of the syphilitic swelling, these contained *Spirochæta pallida* alone.

"Schaudinn also found the *Spirochætes* in blood from the spleen obtained during life on the day previous to the appearance of the roseolar rash.

"No *Spirochætes* were found in soft chancres, buboes, or in carcinomatous, sarcomatous, or lupous tissues.

"After summing up their results these authors conclude that 'we are not far from finding the cause of the disease in this early form of life' (3).

"*Results of other Workers.*—Metchnikoff and Roux had already succeeded in infecting apes with syphilis (6), and now they found the *Spirochæta pallida* in small numbers in the local lesions in 4 out of 6 infected monkeys (7). They found them, moreover, in 4 out of 6 cases in man in recent scrapings of secondary papules, and also in one case of congenital syphilis. In control cases (psoriasis, scabies, acne, etc.), they failed to find *Spirochæta pallida*. They have not succeeded in cultivating the *Spirochætes*, and have small hopes of doing so. They conclude that the *Spirochætes* probably play an etiological rôle in syphilis.

"In the discussion on Schaudinn and Hoffmann's paper, Thesing suggested that the *Spirochætes* were developed in the stain. This was controverted by Wechselmann, Löwenthal, Schaudinn, and later by Giemsa, who suggested that what Thesing saw were crystals of methylene blue or methylene azure. This side issue is still being discussed (9). Buschke and Fischer found the organisms in the tissues of a congenital syphilitic infant post mortem (10), and *also* in the blood of the same case taken during life (11). Non-syphilitic children gave negative results.

"Frosch found *Spirochæta pallida* in the blood from veins, Reckzeh found it in 3 syphilitics and failed to find it in 2 other non-syphilitic patients examined. (4a).

"Raubitschek detected the *Spirochæta* in the circulating blood of secondary syphilis (39).

"Kraus (12) insists on the necessity of making a great number of preparations, the *Spirochæta pallida* being often very irregularly and unequally distributed. He has never found *Spirochæta pallida* in controls.

"R. Volk (37), on examining 31 syphilitic patients, found the parasite in the great majority. The results were negative in 13 out of 14 syphilitic glands examined, and in 17 control non-syphilitic lesions.

"Levaditi (13, a, b) found *Spirochæta pallida* in fluid from the bullæ of syphilitic pemphigus, and also in another congenital syphilitic infant, three months old, from the spleen, lungs, and, above all, the liver.

"Salmon (36) and E. Hoffmann (14) confirmed these observations,

and in addition the latter (14) reports that Schaudinn and he have found these Spirochætes in papular syphilides situated far away from the genitals, *e.g.*, on the breast and back.

"Babes and Panea (15) report cases of congenital syphilis in which they found Spirochæta pallida. It was demonstrated in greatest numbers in the supra-renals. They believe that facts support the relationship of Spirochæta pallida to syphilis.

"E. Hoffmann (16) has found Spirochætes somewhat similar to Spirochæta pallida in carcinomatous ulcers. He thinks that possibly some of these may be examples of the *bacillus fusiformis*.

"C. Fraenkel (17) found the Spirochætes in 6 varied cases of syphilis and writes enthusiastically in support of Schaudinn and Hoffmann, indeed going further than they do. He has no doubt whatever as to the etiologic relationship of Spirochæta pallida to syphilis.

"R. Herxheimer and H. Hübner (18) examined 18 cases, in 2 of which the diagnosis was between soft sore and syphilis. These gave negative results, and the subsequent course of the disease justified this finding. In 15 of the remaining 16 they found Spirochæta pallida, in one of these in sections of the tissues. This is so far unique. They failed to find them in syphilitic glands, in blood, or in the organs of congenital syphilitic children.

"Rille (24) Baudi and Simonelli (25), Ploeger (26), and Jensen (38) were all successful in finding the Spirochæta pallida in primary and secondary lesions and glands.

"Galli-Valerio and A. Lassueur (22) refer to the results of other investigators, and then give their own. They used Michaeli's stain, Ziehl's fuchsin, and Romanowsky.

"They found the Spirochætes in specific condylomas and in mucous plaques in 5 out of 6 syphilitics. They failed to find them in a mucous plaque, a gland, and a hard chancre. In these cases the organisms may have been in very small numbers.

"They expressly note that Schaudinn and Hoffmann do not claim that these organisms are specific.

"Wechselmann and Löwenthal (19) found very short spirilla 3 to 4 μ long, and ask whether the Spirochætes described by Schaudinn are not formed by the union of several such micro-organisms.

"Vaillemín (20) claims that Spirochætes are related to algæ. Spirochæta pallida, on the contrary, is correctly attached to the protozoa by Schaudinn, and Vaillemín proposes the name of *Spironema*.

"M'Weeney (21) found Spirochætes in 9 primary and secondary cases of syphilis. His results were negative in a tertiary ulcer of the palate and in a non-ulcerating muco-purulent vaginitis. Jacquet and Sevin also failed to find Spirochætes in all tertiary lesions examined (27) (*cf.* Spitzer).

"Gordon (23) failed to detect *Spirochætes* in the fluid obtained by lumbar puncture in cerebro-spinal syphilis and in tabes with a distinct syphilitic history.

"L. Spitzer (28) found *Spirochæta pallida* in 6 primary sores, in 7 skin eruptions, in some cases even after long treatment. This is also the experience of others. He found them also in two cases of *tertiary* syphilis—in one case from distinctive infiltrations, and in the other from a gumma of the scalp. The latter case had had no treatment. No other observer has been successful in cases of tertiary syphilis. M'Weeney, Gordon, and others suggest that tertiary lesions are caused by a chronic intoxication, due to absorption of the metabolic products of the *Spirochæte*. Spitzer's results were negative in eczema, pemphigus, psoriasis, verruca plana, and erythema nodosum.

"All the authors referred to so far (the references are arranged to a certain extent in the order in which their papers appeared) support Schaudinn and Hoffmann. A very few are critical, or even hostile.

"R. Horand (29*a*) refers to his published works of a "*hémoprotiste*" pathogenic agent of syphilis (29*b*). The *Spirochæte* described by Schaudinn appears to be identical with one of the involution forms of this "*hémoprotiste*."

"Paltauf (30), discussing the relationship of *Spirochæta pallida* to syphilis, emphasises the fact (according to Schaudinn) that it is not of bacterial but of protozoal nature, and represents an involution form of a blood parasite. Still, whilst one recognized Trypanosomes and *Spirochætes* as blood parasites, one did not know that they produced a form of granulation tissue such as is found in syphilis.

"M. Schüller (31), in a review of Schaudinn and Hoffmann's communication as to the occurrence of *Spirochæta pallida* in lymph glands (2), doubts whether it has a causative relationship to syphilis at all. He believes that he has seen these bodies years ago, but described them as baccilli (references to papers given), and he cannot understand Schaudinn's reasons for placing them amongst the animal parasites. He suggests that they may be contaminating bacilli. He also criticises the technique employed.

"Most of his objections have been answered by the numerous workers already referred to, the strongest argument against them being that the *Spirochæta pallida* has been found *only* in syphilitic lesions, and never, except by Kiolomenoglou (*v. postea*), in many non-syphilitic conditions examined by similar methods.

"The most important paper on the negative side is that of Kiolomenoglou and von Cube (32), just referred to.

"In the first place, they were able to confirm the occurrence of *Spirochæta pallida* in syphilitic lesions, but they considered it quite as important to confirm the absence of it in non-syphilitic lesions. In all their

work they exercised the greatest care in making and staining their preparations.

“They found the organism in—

“First—A collection of syphilitic cases.

“Second—In the secretion from an inflamed phimosi. There may have been a masked primary lesion in this case.

“Third—In pus from a gonorrhœal abscess of Bartholini’s gland in a patient with leucoderma colli specificum.

“Fourth—In simple balanitis.

“Fifth—In pus from a scrofulo-dermatic abscess.

“Sixth—In the degenerative products of a suppurating cancer.

“Seventh—In tissue-juice of a condyloma acuminatum.

“Negative results were obtained in acute gonorrhœa, syphilitic blood, acne vulgaris, impetigo, phthisical sputum, etc.

“We do not hesitate to claim these bodies found in some non-specific cases as typical examples of the *Spirochæta pallida*. . . . Particularly characteristic was the preparation from the carcinoma.

“We must not omit to state, however, that in all the above cases we found the *Spirochæta refringens* as well. But we often found—and to this we attach great weight—in one and the same field, in addition to the typical forms of the *Spirochæta pallida* and *refringens*, numerous atypical *Spirochæte* forms whose characters corresponded to neither of these. Some of them were not so long as *Spirochæta pallida*, and had 2 to 3 flat wavy curves (*cf.* Weichselmann and Löwenthal), whilst in all other respects they were like *Spirochæta pallida*. Others stood midway between the two, and it was impossible to correlate them with either.

“There seems to be quite a *Spirochæta* fauna, especially frequent in stagnant secretions, so that we cannot resist the conclusion that *Spirochæta refringens* and the above-mentioned atypical forms are manifestly saprophytes. It must be remembered, however, that we have found *Spirochæta pallida* as well in such secretions, and the idea that it also may be saprophytic is not at all, as yet, to be put on one side.

“They think that C. Fraenkel’s conclusion that the *Spirochæta pallida* is undoubtedly the cause of syphilis has been spoken rather too soon. ‘We are at least not yet in the position to determine the characteristics distinguishing *Spirochætes* occurring in syphilis from those occurring in other conditions.’

“One may say, in criticism, that granting all this, it does not necessarily exclude the possibility—judging from the many important, positive observations made—that the *Spirochæta pallida* may be the veritable cause of syphilis. It is a commonplace in bacteriology that many of the most important pathogenetic organisms may occur in or on the body as saprophytes, the conditions being unfavorable to the exercise of their pathogenetic powers.

"*Summary.*—Metchnikoff and Roux have proved that syphilis is transmissible to the anthropoid apes. Later, Schaudinn and Hoffmann described extremely delicate Spirochæte forms in primary and secondary syphilitic lesions, and peculiar to syphilis. They were discovered in hanging drops or by making smears, and after fixation in alcohol, staining by a modification of Giemsa's method.

"Metchnikoff and Roux found identical forms in the experimental lesions in monkeys. A considerable number of workers confirm completely the work of Schaudinn and Hoffmann. In addition, the Spirochæta has been found in the blood and organs of congenital syphilitic infants, and in acquired syphilis in blood obtained by puncture of the spleen on the day before the roseolar rash appeared, showing that it reaches the skin through the blood-vessels. It has later been found in the circulating blood. A body described as Spirochæta pallida has been once seen in a section of a syphilitic tissue. In acquired syphilis it is found only in primary and secondary manifestations, practically never in the tertiary stage.

"Most authors agree that it is never found in non-syphilitic lesions.

"The balance of evidence seems to be in favor of the etiological relationship of Spirochæta pallida to syphilis.

"*Staining Methods.*—Most investigators have used Giemsa's stain (8), applied for long periods—1 to 14 hours—after fixation of the smears, which should be very thin, in absolute alcohol. Giemsa says that the optimum time for staining the Spirochæta pallida is one hour. Davidsohn (33) recommends cresyl violet R. extra. Reitmann (41) stains with ordinary carbol-fuchsin, after heating the film with phosphotungstic acid. Herxheimer and Hübner (18) suggest Nilblau B.R. or Capriblau in 1-1000 aqueous solution, applied for 16-24 hours. Metchnikoff and Roux (7), and also Jaquet and Sevin (27) recommend Marino's mixture (34).

"Hoffmann (3) succeeded in demonstrating the Spirochætes by staining with fuchsin and anilin water gentian violet. Some, e.g. Oppenheim and Sachs (35), have succeeded with carbolic acid gentian violet, and others with Romanowsky's stain. Dudgeon (40) uses Leishmann's stain."

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BOOK REVIEW.

Die Blennorrhoe der Sexualorgane und ihre Complicationen. By ERNEST FINGER. (Sechste vermehrte und verbesserte Auflage. Leipzig u Wien. Franz Deuticke, 1905.)

Finger's book on Blennorrhœa of the Sexual Organs and its Complications has long been considered a standard work on this subject. The new, 6th edition, although enlarged and improved, does not differ from the preceding one in any essential or material features. But in almost every chapter we find abundant evidence of the author's conscientious observation of current literature, certainly of the Continental one, and of his endeavors to present the subject fully up to date. This is particularly true of the pathology of blennorrhœa; all important new observations and discoveries have been recorded and considered.

In a quasi introductory general part, the history and etiology are treated; and it is shown that the infectiousness of blennorrhœa and the nature of its virus, the gonococcus, have been proven beyond doubt. Here new staining methods of the gonococcus particularly in sections of tissue and improved culture methods and culture media are described. However, the author repeats the statement made in former editions, that we know of no culture medium sufficiently reliable to give absolutely sure positive results when the gonococcus is present in scanty numbers only in the inoculated substance. The author mentions the negative results of his experimental inoculations of patients with temperatures between 102° and 104° F., without claiming any further immunity for fever patients.

The first chapter of the special part begins with anatomical and physiological notes. Here the author broadly develops his views of the strict division of the urethra into an anterior and a posterior portion and of the muscular apparatus of the bladder and of the urethra, particularly of the coalescence of the considerably extended bladder with the prostatic urethra. There seems to be no doubt that such a distension of the bladder really occurs, but the question may be well raised, whether such an over-extension of the bladder can be considered a normal or physiological condition. The distressing sensation connected with it rather suggests a deviation from the normal function. Practical experience with the endoscope also throws some doubt on the author's doctrine of the functions of the sphincter internus, sphincter externus and compressor partis membranacæ. It is impossible to find a dividing line or a difference in the appearance of the mucous membrane between the anterior and posterior urethra, certainly not the membranous portion. The resistance of the compressor part membranacæ which more commonly occurs on the introduction of bougies or small sounds is usually entirely absent during endoscopy, and a firm resistance is only met with when the internal orifice of the urethra has been reached, and even after the passing of the sphincter externus not the slightest flow of urine takes place.

In accordance with his anatomical teachings the author strictly distinguishes, in the chapter on acute urethritis, between anterior and posterior urethritis as two distinct affections. Gonorrhœa typically extends to the bulbus and no farther; the continuation of the inflammatory process to the posterior urethra has to be considered as a complication, although a frequent one. If we later on find that this complication occurs in between 69 and 93 per cent. of all cases

according to the statistics of various authors, such a sharp distinction seems hardly justified.

Besides interesting observations on incubation and particularly on extended incubations, the symptoms are described in a very clear manner, with due consideration of the microscopical examination. According to Pappenheim's investigations the presence in the secretion of mononuclear round cells points to a chronic condition of the gonorrhœa, while an increase of the eosinophiles renders the participation of the posterior urethra highly probable. In the chapter on acute posterior urethritis the author's regurgitation theory and the different methods of examining the urine are minutely described.

Under the heading of diagnosis and differential diagnosis (p. 97 et seq.) excellent advice is given, which cannot be urged too much on the practitioner; to answer first the question whether the secretion is really gonorrhœal, and, second, how far the gonorrhœal affection extends over the mucous membrane; the newer literature on non-gonorrhœal urethritis is here reviewed. On pages 106-118 there follows an excellent description of the histological changes during the course of acute urethritis, illustrated by a colored plate (VI). Again, under the chapter on therapeutics, the practitioner is admonished that only a sure diagnosis, exact localization, careful consideration of the intensity of the process and precise ordination on the strength of definite indication guarantee success of the treatment. The author doubts the effectiveness of the prophylactic remedies, which have recently been much heralded in Germany, and does not consider them free from danger. Then follows a review of all the remedies which have been used or recommended, internal and external, with the various syringes and other apparatus, the newer organic silver preparations being given due attention. Among the different methods of application of these remedies Finger favors now a "methodical, local, symptomatic and curative treatment." He has not seen any good results from the various abortive methods; *Janet's* irrigation method, which he wrongly places among the abortive methods is but briefly mentioned and not approved. The local treatment which Finger recommends, is applicable only to uncomplicated cases of anterior urethritis; except in cases with unusually severe inflammatory symptoms, he recommends (with Neisser) the early treatment with antiseptics (silver salts) without astringents; the latter are to be used only in the second stage. This chapter closes with the consideration of the difficult question, how long treatment has to be continued. Whenever an urethritis posterior is present, this has to be treated first; the posterior urethra is never reached by injections with the usual gonorrhœal syringe, but has to be treated by deep injections with Ultzman's syringe, or by irrigation through a catheter (Diday). Janet's irrigation by high pressure without a catheter is not approved. The definition of chronic urethritis (p. 179), as the "continuation of the muco-purulent terminal stage of acute urethritis in a circumscribed portion of the urethra, with its disappearance from the remaining portions, with a preference for the pars pendula bulbosa and prostatica," hardly covers all conditions of chronic gonorrhœa. In the chapter on symptomatology, the importance of the gonorrhœa threads or filaments is extensively considered, as well as the various conditions of the urine, the secretion of the prostate, the presence of gonococci and the infectiousness of chronic gonorrhœa. Then follows the description of the means of localizing the seat of the chronic process, including the endoscope, and beginning on page 218, the consideration of the pathological anatomy. This is supplemented by two excellent colored plates (VII and VIII); besides these, plate V appears rather antiquated and might be omitted without detriment to the book. The application of instruments for diagnostic purposes is not recommended as long as considerable cloudiness of the urine and filaments are present. This is undoubtedly sound advice, but cannot always be followed in practice. The different methods of treatment, dilation by sounds and other instruments as well as the application through the endoscope, are commented upon, but the author wisely

warns against any routine treatment and recommends under any circumstances to commence treatment by the milder methods. The difficulties of prognosis are duly explained.

Among the complications of gonorrhœa, the most important are prostatitis and epididymitis; they are carefully considered, particularly their pathological anatomy, without, however, really new features. In the treatment of epididymitis the application of ice is forbidden under any circumstances, and it is claimed that under ordinary circumstances the inflammatory symptoms will disappear in four to five days under indifferent treatment and rest. The inflammation of the seminal vesicles is next considered; the large number of remedies mentioned for the treatment of cystitis, suggest the more or less unsatisfactory results of most of them.

Blennorrhœa in the female, is treated somewhat less broadly, although urethritis and vaginitis receive particular attention. The affections of the uterus and its adnexa are treated in a more cursory manner as well as the general complications common to both sexes. A short chapter (page 435) is devoted to the blennorrhagic exanthemata, their nature and etiology are not yet sufficiently explained.

The more scientific features of Finger's book will always and everywhere command the attention of the general practitioner as well as that of the specialist. From the therapeutic standpoint, it will be somewhat disappointing to many American physicians, although the more recent editions of the book have shown considerable advance in the author's views.

H. G. K.

NOTICE OF SOCIETY MEETING.

The program of the October meeting (N. Y. Academy of Medicine, October 12) of the Society of Social and Moral Prophylaxis is as follows:

First. Should the youth of the country be educated in a knowledge of Sexual Physiology and Hygiene?

Second. What should be the nature and scope of this education?

Third. At what age should this instruction be given, and should it be progressive according to the age of the individual?

Fourth. Through what agencies should this instruction be given—through parents, physicians, or teachers? Should our educational centers—high schools, colleges, and universities—be utilized for this purpose?

Fifth. Should the teaching of Sexual Physiology be incorporated in our text-books of Elementary Hygiene?

As the educational value of the Society's work is an important one, the Executive Committee would be glad to have a general expression of opinion from the medical profession as to the availability and practical value of this proposed education. Physicians who have given serious thought to the subject are invited to send to the Secretary their views upon any or all of the questions submitted for discussion. Such communications will be analyzed and tabulated and form the subject of a report by the Committee on Education. Yours truly,

E. L. KEYES, JR.,
Secretary.

OBITUARY.

CHARLES MAURIAC died suddenly at Pontours on May 25th, 1905, in the seventy-third year of his life. Throughout his long career he was a zealous student. He received his medical education in Paris, and while an undergraduate won many prizes by his work. After graduation he was appointed physician to the central bureau of hospitals. For seven years he practiced general medicine. Then chance threw him into the *Hôpital du Midi* and turned his attention to the study of venereal diseases. He was an original worker, making careful observations and tabulating his cases with precision. His lectures upon venereal diseases and syphilis were brilliant and profound. He contributed many papers to medical journals. In 1883 he published *Leçons Cliniques sur les Maladies Vénériennes*, which dealt with early syphilis. In 1890 appeared a second volume dealing with late and hereditary syphilis. In 1896 he completed the series by issuing *Traitement de la Syphilis*. All of these books are exhaustive treatises, held in high esteem.

He was Honorary Physician to the Hôpital Ricord, and Honorary President of the Dermatological Society of France, as well as member of the Academy of Sciences and Academy of Medicine. G. T. J.

OBITUARY.

RENE DUCASTEL died in Paris on June 29th, 1905, in the fifty-ninth year of his life. He was one of the foremost of French dermatologists. His career was brilliant and marked by enthusiastic devotion to his chosen studies. He was specially interested in the therapeutics of dermatology and syphilis, and made many valuable contributions to our armamentarium.

In the early days of his medical life, he was interested in general medicine, and did a good deal of research work in the general hospitals. In 1880 he was appointed one of the physicians to the Hôpital Midi. For the next ten years he turned his attention to the study of syphilis. In 1890 he became one of the staff of the Hôpital St. Louis, and from that time skin diseases engrossed his attention.

He was a member of the Academy of Medicine, Secretary General of the Dermatological Society of France, one of the publication committee of the *Annales de Dermatologie et de Syphiligraphie*, and a Chevalier of the Legion of Honor. G. T. J.

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A PLEA FOR THE USE OF SOLUBLE PREPARATIONS OF MERCURY IN THE TREATMENT OF SYPHILIS BY THE MOUTH.

By HERMANN G. KLOTZ, M.D., New York.

WHATEVER predilection one may have for other methods of administering mercury to patients infected with syphilis, there will always remain a number of cases, in which various conditions will leave the ingestion of the drug by the mouth and the alimentary canal the only available method. In this country it is undoubtedly still the method of preference with a very great majority of physicians. In looking over the periodical literature as well as text and handbooks, the pill-form is almost exclusively considered and the yellow or green iodide, the protoiodide, is generally recommended, certainly during the early stages of the disease, only for the later manifestations the mixed treatment, *i. e.*, the bichloride or biniodide of mercury in combination with iodide of potassium is given preference by some authors. Probably but few physicians among those who prescribe the protoiodide ever reflect for what reasons they employ this particular preparation; to many, any manifestation, sometimes any suspicion of syphilis, seems to be inevitably associated with a yellow pill or tablet. Even some authors of textbooks, like Greene in *Bangs-Hardaway* do not advance any reasons for their preference of this particular preparation and no explanation seems necessary in the face of its general use in this country as well as in France. J. W. White in *Morrow's System* (II p. 732), is inclined to allow some beneficial influence to the small quantity of iodide contained in the drug, but he thinks that the protoiodide is to be preferred for the practical reason, that it has stood very well the test of employment of hundreds of syphilographers in tens of thousands of cases and has on the whole given good results. Keyes (K. & Chetwood, *Veneral Diseases*, 1900), prefers the protoiodide for his "tonic treat-

ment" to the bichloride, "a very tonic preparation," to gray powder, blue pills and calomel, without denying their usefulness. But they do not sufficiently irritate the intestines as it is customary with the protoiodide, which gives warning that the full dose is reached while the patient is still a long way from salivation. Keyes uses the Garnier-Lamoureux sugar coated granules, which do not contain a pure protoiodide like the yellow pills and tablets, but uniformly a mixture of yellow and impure green protoiodide, specks of red iodide and globules of metallic mercury with a little free iodine. The protoiodide has no special value; whichever drug is used, it is important to have the same dispensed in small doses, so that they may be easily multiplied. Bichloride of mercury in the mixture of sesquichloride of iron is mentioned as a useful combination, the dose of the bichloride to begin with 1-50 to 1-100 of a grain. Taylor (*Gen. Urin. and Ven. Dis.*, 1904, p. 674), states that his preference is for the protoiodide without giving any reason therefor, but he enumerates the drawbacks of the other preparations, including the bichloride, which "very commonly produces pain in the chest and bowels and gastro-intestinal irritation; it cannot be relied upon, for in small doses by the stomach it does little if any good and in large doses it is very irritating." Taylor does not mention whether he refers to the use in pill form or to solutions. But later (p. 679) he recommends for the later stages of the disease, a solution of biniodide .13 to .26 centigrams, iodide of potash, 2 grams, Tr. Cinchoae Co. 112. c.c. and water 150 c.c., stating that in this prescription the mercurial is the efficient agent and the iodide simply serves the purpose of rendering it soluble. This mixture is praised as remarkably efficient and beneficial; it is usually well borne by the stomach, but great care must be observed in its administration.

German syphilographers, as a rule, prefer other methods of mercurial treatment and pay less attention to internal administration; in most instances the protoiodide in pills is considered in the first line, although Kaposi, Neuman, Lang and Zeissl mention the solution of the bichloride but with the caution to watch the intestinal tract during its administration.

Probably in France more than in any other country on the continent, has the treatment by the mouth occupied a prominent position, until more recently the hypodermic method has gained many adherents; a great many favorite formulæ and compositions have been there in use, liqueurs, syrups, pills, etc. Mauriac (*Traitement de la Syphilis*, 1896, p. 195), considers the bichloride and the protoiodide as the most frequently employed mercurials, the former principally

adopted on the authorities of Van Swieten and Boerhave, the latter on that of Ricord, to whose patronage, he believes, the popularity of the protoiodide is largely to be attributed. Mauriac, apparently speaking principally of the administration of pills, carefully reviews the differences in the action of the two drugs without giving absolute preference to either, but rather advising to adapt their use to the conditions present in every single case. The bichloride, being an acrid and corrosive poison, affects the stomach rather than the intestines; if taken in the small therapeutic doses, some patients, more in the beginning of the treatment, complain of griping and crampy pains in the stomach, burning, etc., which gradually disappear or may persist and produce a real gastralgia. As a rule the bichloride agrees much less with female than with male patients. It is not advisable to lengthen the treatment too much, although Mauriac has seen patients taking 4-5 centigrammes *pro die* for several months without any bad effects. The pills are much more liable to cause trouble than Van Swieten's liquor; this, however, becomes repugnant to many on account of its disagreeable taste. To some extent this can be modified by the addition of some syrup or aromatic substance like rum, kirschwasser or cognac, to a sufficient quantity of water, but then it is to be apprehended that some patients might allow themselves to go too far in aromatizing. The protoiodide affects the stomach less than the bowels in the shape of slight colics and a mild diarrhœa, principally during the first three or four days, but sometimes appearing during the course of treatment; signs of gastralgia or dyspepsia rarely occur. But the protoiodide early produces gingivitis and stomatitis subject to a certain idiosyncrasy. In general, therefore, the bichloride would be preferable where the condition of the mouth and of the bowels have to be considered and the protoiodide for dyspeptics. It has been claimed that the bichloride exerts a deeper and more lasting influence on the disease, and therefore was more appropriate for the later inveterate or tertiary manifestations, also that it could be more conveniently combined with iodide of potassium, while the protoiodide was more suitable to the early stages. Mauriac does not admit such an inferiority of the protoiodide, as it may be used, if necessary, in doses much larger than the average. As to a certain degree of salivation, he asks, whether that is not necessary under circumstances. Whoever has witnessed the almost entire absence of stomatitis or even the slightest irritation of the gums and the entire oral cavity during the application of intramuscular injections of the salicylate of mercury and other insoluble salts, often even of calomel,

in the presence of the often most astonishing therapeutic efficiency, cannot help doubting the advantage or necessity of salivation or other disagreeable bye-effects of mercurial treatment.

My own experience, extending over more than thirty years has not been in accordance with the common favorable opinion of the protoiodide or of the administration of mercury in pills. When I became more especially interested in the treatment of syphilis, I began to use without any prejudice, the protoiodide mostly in combination with small doses of opium according to the usual rules, trusting to the correctness of the general favorable opinion of its merits. As to the effectiveness of the treatment there was no reason to be dissatisfied as long as the course of the disease kept within the limits of what may be called a normal one; syphilides, principally the scaly papular syphilides of the palms and soles, even in rather late stages, seemed to be particularly affected. The influence on manifestations in the mouth and throat was usually less favorable; but other symptoms like the large flat papular syphilide improved very slowly, and the occurrence of new lesions on the skin or mucous membranes during the treatment was not so very rare; later secondary and tertiary symptoms were but little influenced. In addition to these more or less disappointing feature of the protoiodide treatment, direct complaints of disagreeable consequences were not infrequent in the first line bearing on the digestive tract; colicky pains, diarrhœa not very copious, perhaps three or four passages during the day, small in quantity but of an acrid, irritating character, also not so rarely loss of appetite and other dyspeptic symptoms. Far more annoying was the influence on the gums and the oral cavity, not so much in the shape of a severe ulcerating gingivitis, but of a more or less constant salivation, swelling and redness of the margin of the gums and the entire mucous membrane, accompanied by a sharp disagreeable odor. On trial I found that other preparations of mercury like the bichloride, the tannate and even the salicylate, if given in pills, did not differ much from the protoiodide, which occasionally brought out also a mild iodine eruption on the face, shoulders and back. Owing to such experience, I turned to the older French method of using solutions of the bichloride, not in the strict formula of the Liqueur de Van Swieten (bichloride l. alcohol 100. water 1900.), but in varying strength, gradually increasing the dose. The great attraction of the pills for the patient is the convenience of carrying them around; it was, therefore, important to find some way of making the employment of the solution not too cumbersome. A three ounce bottle, particularly

a flat one, is probably the largest size that can be comfortably accommodated in a coat or even, vest pocket; its contents amount to about twenty-four teaspoonfuls; counting on a certain amount of loss you surely have twenty-one teaspoonfuls, *i. e.*, three daily doses for one week, and if the patient is advised that the medicine is to last seven days, you have almost as exact a dosage as in pills. It will be even more convenient if the patient uses a half ounce bottle, fills it every day about three-fourths full and so take with him his three doses for the day; he will have no difficulty to find some water, which will also be required by most people for swallowing pills. In this way I began many years ago to administer the bichloride of mercury to private patients as well as in my service in the German Dispensary, and I soon found that the disadvantages or dangers ascribed to the drug were by no means as common or severe as the books would have it. In some instances the taste proved, indeed, quite obnoxious, not so much in swallowing the dose itself, but more on account of the metallic aftertaste, particularly on waking up in the morning. However, I find this connected with all internal ingestion of mercury, even with pills. After a longer period of the treatment, the taste may indeed become so annoying that it has to be stopped, at least temporarily. But this is not the rule. Much less frequent and much less aggravated were the effects on the stomach: loss of appetite, dyspepsia, or gastralgia, were rare; to the contrary, quite a number of patients, and intelligent ones too, would voluntarily state that the functions of their digestive organs were performed more regularly and normally while taking the bichloride solution. This is probably due to its antiseptic qualities. I do not remember to have heard anyone complaining of pains in the chest; headaches sometimes appear after some weeks of the treatment, but I do not think they occurred oftener than after other methods of mercurial ingestion. The almost entire absence of stomatitis was another advantage; this is most likely also due to the antiseptic properties of the solution and does not appear so strange if it is considered that according to some recent authors (Bockhardt, *Monatsh. f. prakt. Dermat.*, 1885, and Lanz, *Pathogenese der Mercuriellen Stomatitis und Salivation*, Berlin, 1897) the bacteria usually present in large numbers in the buccal cavity, play an important part in the etiology of mercurial stomatitis. With only the usual rinsing with a solution of chlorate of potassium, the mouth would remain sound and sweet and I have seen gums which were affected by former mercurial treatment, assume their healthy condition and retain the same during prolonged administration of the

bichloride solution. It is probably not so generally known, that one of the best local applications for a mercurial stomatitis is a bichloride solution of the strength of 1:2-3000 or less, to which my attention was long ago directed by my friend, Dr. C. Schuhmacher of Aix-la-Chapelle.

Another point in favor of the bichloride solution is its remarkable effect on the symptoms of syphilis and apparently on the disease itself, which in my hands has proved far superior to that of pills. This is shown not only by the quicker disappearance of the lesions on the skin or mucous membranes, but also by the smaller frequency of relapses and by the more ready influence on some of the late secondary or so-called tertiary symptoms. Naturally I am speaking of the solution of the bichloride alone, not of the combination with iodine, the "mixed treatment," the efficacy of which is generally recognized. I do not wish to make any positive claims that the better results obtained with the solution of the bichloride are due to the more sure and rapid absorption of the mercury. In general, I am inclined to believe that the state of solution of a drug is the most favorable for assimilation. But we have no exact knowledge of the chemical processes which take place in the stomach or elsewhere in the organism to accomplish the assimilation of the mercury. Mauriac (l. c., p. 207), after reviewing the different theories in regard to the chemical changes of mercury in the stomach and in the human body, confesses that with the present state of our knowledge, that question cannot positively be answered.

As a rule I have not employed very large doses. The usual prescription in the German Dispensary was 15 centigrammes of the bichloride, dissolved in 90 grammes of water. I should prefer to make it 0.15:100.0, but in the U. S. bottles used for the dispensation of fluid medicines are adapted to ounces and not always convenient for the metric system, so that druggists usually employ the larger four ounce or 120 Cem. bottle for a prescription calling for 100 Cem. In a prescription of 15, 20 or 25 Centigrammes to 90 or 100 Cem. of water the single dose would be approximately 0.7, 1.0 or 1.2 centigrammes or from $\frac{1}{8}$ to $\frac{1}{5}$ of a grain, or from $\frac{2}{3}$ to $\frac{3}{5}$ of a grain *pro die*, or prescribed in ounces and grains: $2\frac{1}{2}$ to 4 grains in 3 ounces. These doses are very near to those recommended by Mauriac. As a rule no syrups or aromatics have been added because with a solution in plain distilled water, decomposition is least likely to take place, but the patients were always strictly advised to take the medicine diluted with water or milk some time after meals. During years of application to a large num-

ber of patients, this method has proved quite satisfactory to myself and as I believe to my associates in the Dispensary service, Drs. A. F. Büohler, S. Pollitzer and H. Graeser. I had intended for some time to call the attention of the profession to its advantages, when in 1900 in the *Festschrift* for Prof. Kaposi, p. 87, Dr. L. Brocq of Paris, published a paper entitled: *Les doses fractionnées de bichlorure et de biiodure de mercure dans le traitement de la Syphilis*. As Brocq's views and experiences are almost identical with my own on the most important points, it seems justified to add a brief review of his article.

The treatment by the stomach, he says, presents severe inconveniences, particularly if the mercurial preparations are given in pills. Still it must be acknowledged that a great majority of physicians prescribe pills at the instance of the patients who wish to handle a remedy which it is easy to conceal. It must be conceded, that the administration in pills is much less reliable, for the complete dissolution of the pill and the absorption of its contents is subject to chance, and besides if the pill is dissolved, the active principle which it contains can act injuriously on the mucous membrane of the digestive canal. On account of this unreliableness and the intolerance of the stomach, the partisans of intramuscular ingestions have attacked the treatment by pills. But the administration of pills does not represent the entire internal treatment, and for ages the great axiom has been known: *corpora non agunt nisi soluta*.

Brocq states that since 1888 he had become convinced of the truth of this principle and has experimented as much as possible with the treatment by the mouth, using only the soluble mercurial combinations. In doing this he only took up again the practice of the old syphilographers. The administration of the solutions was effected in two ways: either by giving the entire daily quantity in one or two large doses either in the morning before breakfast or before the two principal meals. This is the more convenient method, as the patients need not carry any medicine with them, but it is less effective and more irritating to the alimentary canal, or the daily quantity is divided in four to six doses, which are taken before and in the intervals between meals in a cupful of milk or vichy. This is his method of choice and seems to give the best results. Brocq considers seriatim the disadvantages; the effect on the stomach is much less to be feared if the medicine is taken with a sufficient quantity of milk or vichy. He also states, that, although this might appear paradoxical, several patients had the functions of their digestive organs improved, they had more regular evacuations and in some instances constipation prevailed. In

cases of stomachache or diarrhœa, a few drops of paregoric would mostly be sufficient for relief. The disgust, which some patients have against the medicine, can mostly be circumvented by the addition of some perfume like anise, or by giving the medicine in some aromatic syrup. In some instances it cannot be overcome, strange to say such repugnance is less rarely met with in private practice than in the hospitals. Probably the most serious obstacle is the incommodiousness; some patients practically have no opportunity for taking the medicine several times a day on account of their occupation or because they must not let it be known that they are taking medicine; some forget to take it. He gives the patient a small graduated bottle in which he can carry with him the entire daily quantity diluted by some liquid. It is remarkable that Brocq does not mention at all the relations of the soluble medication to the mouth. This silence on stomatitis may be explained by the fact that he did not observe it on his patients.

As the advantages of his method, Brocq considers the exactness of the dose in comparison with inunctions and inhalations, the slight irritation of the intestinal tract, the fact that the patient is not obliged to frequently go to the physician, the avoidance of pain and temporary inability to attend to his business which may occur during injections. He claims that particularly the frequent small doses give really remarkable therapeutic results, almost similar to the injections of insoluble salts. He states that he often has prescribed 19 to 20 grammes of Van Swieten's liquor *pro die* and that with such doses of 1.5 to 2 centigrammes ($\frac{1}{4}$ to $\frac{1}{3}$ grain), he obtained much better results than with three or four pills of 1 centigramme. The larger and less frequent doses do not give quite so good results. Within the twelve years he used the method, Brocq has met with few manifestations of syphilis which resisted it, except in certain cases of tertiary psoriasiform syphilides of the palms and soles and in some even more rare cases of sclerotic gummatous infiltration in the oral cavity, particularly of the tongue. For these particularly rebellious manifestations nothing equals the injections of calomel. But malignant precocious syphilides, gummata tending to destruction, periostitis, tertiary serpyiginous ulcers, etc., usually yielded to the fractionary doses of soluble mercurial preparations either alone or in combination with iodide of potassium. At the same time Brocq does not recommend this method as the exclusive treatment for syphilis, but employs the other methods: inunctions, injections, particularly in the hospital service. In this I most heartily concur.

A CASE OF LICHEN PLANUS COMBINING TWO RARE FORMS OF THE DISEASE.

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A S., age twenty-nine, born in Italy, married, father of one child. Parental history negative. There was nothing unusual regarding childhood, enjoyed good health since puberty. Came under observation December 12, 1903. About three years preceding the above date, patient noticed a purplish spot on the prepuce which gradually enlarged to about the size of a ten-cent piece. This was followed by three similar lesions involving the skin on the upper aspect of the glans penis. After extending peripherally, they gradually cleared in the center, to form circles, when they remained practically unchanged for a period of about two years.

After being treated variously, first for syphilis, and when the circular lesions had formed for trichophytosis, a circumcision was done including all present lesions.

Two months following the operation, patient noticed a return of the disease in the scar tissue, and a few weeks later new foci appeared following a similar course to the original lesions. When he came under observation there were three lesions present, circular in outline 14 m.m. in diameter. The circles were made up of closely aggregated small purplish papules, with depressed centers, and grayish striæ marking their surfaces. The epidermis within the circles appeared to be normal. The first location of recurrence shows the papules arranged in two lines, which are connected at either end. The depressed center is composed of scar tissue following the circumcision. (Fig. 1.)

With the appearance of the disease on the penis, there developed on the inner side of the right leg, a patch of gray, scaly eruption, about the size of a silver dollar, which gradually extended.

Examination showed a slightly elevated lesion located on the anterior surface of the right leg, involving the lower and middle thirds. Triangular in outline with the apex up, measuring about 10 c.m. at the base. On grasping the lesion between the fingers there

was imparted a feeling of board-like hardness, showing considerable infiltration.

The surface was studded by numerous elevations marking the site of the pilo-sebaceous follicles, more noticeable toward the border of the patch. The natural lines were exaggerated gradually becoming less toward the border. The color was a faint purple with an admixture of gray, the gray predominating. The hair was absent except in those follicles most recently involved, in some of which they were broken off showing that the loss was gradual, and the result of the developing keratosis in the follicles.

Sensation was absent both to touch and pin-prick except on deep puncture. There was severe pruritus which was not relieved by scratching, but rather intensified.

Histological examination of the parakeratotic lesion—a small piece of skin was excised down to the subcutaneous tissue, fixed in Müller's fluid and formalin, hardened in graded alcohols, mounted in celloidin, and stained with hæmatoxylin and picric-acid-fuschin, Unnas's method for mast and plasma cells, Weigert's elastic tissue stain, etc.

Examination showed a marked hyperkeratosis which extended into the follicles and openings of the sudoriferous ducts.

Keratosis was most evident in the location of the ducts, forming irregular and conical masses, some of which presented oval cystic dilatations. The epidermis was depressed by these masses forming cup-like depressions, the floor of which was made up of the stratum lucidum. The underlying epithelium was carried down in funnel-shaped processes continuous with the ducts, which were thickened, gradually becoming less in calibre as the coil glands were reached. (Fig. 2.)

The rete was considerably thinned, the papillary processes were narrowed and in some locations absent. Thinning of the rete was due to a lessened number of cells in the lower layers. The stratum lucidum and granulosum were not noticeably altered. The intercellular spaces were widened and the intercellular bridges indistinct.

The upper part of the corium showed dilatation of the capillary vessels. The connective tissue cells were more numerous than normal, and in some locations were arranged in foci with a limited number of plasma and mast cells. (Fig. 3.)

These foci were also seen in the lower part of the corium in the neighborhood of the ducts. (Fig. 2.)

The coil and sebaceous glands were apparently normal.



The condition described in relation to the openings of the sudoriferous ducts was especially interesting on account of the resemblance to the changes found in porokeratosis, but since the clinical course was so different from the well defined disease of "Mibelli," we had better consider this variety in a different category until the general pathology of keratosis has been more carefully studied and defined.

I have noted this condition in previous cases, one of eighteen years' duration. Located on the extensor surface of the left forearm. In appearance corresponding with the condition described, only differing in that the natural lines were not evidently exaggerated. Hair was entirely absent, but reappeared as the keratosis became less under treatment, which consisted of applications of glacial acetic acid 99½ per cent. until maceration of the epidermis occurred, or until bleeding was noticed, when water was plentifully applied to prevent further action of the acid. A ten per cent. ointment of oleate of mercury was then applied and the lesion covered with a rubber plaster. Applications of the acid were made at intervals of four or five days. As the keratosis became less marked the lesion was noticed to be made up of numerous small purplish elevations with light stria running irregularly through and between them. This condition gradually disappeared under mercurial applications, leaving the skin to all appearances normal.

Treatment of the case under consideration consisted of arsenious acid internally with various forms of mercurial ointment locally.

The lesion involving the leg showed rapid improvement with oleate of mercury ointment, and was continued until all signs of infiltration had disappeared. Those on the penis did not improve noticeably with the above, and were finally cauterized with the galvano cautery, and ung. hydrarg U. S. P. strength applied. The individual papules were each touched in turn, using only moderate heat (a dull red). This was done at intervals of from ten days to two weeks.

Patient was discharged cured October 10, 1904, but returned three months later with the central lesion redeveloping. This was again cauterized and rapidly disappeared under the local treatment as previously employed.

ANTIRHEUMATIC TREATMENT OF PSORIASIS OF THE FINGER NAILS.

By A. S. ASHMEAD, M.D., New York.

DR. JAMES BURNET, of Edinburgh, referring to a paper previously published in the *Medical Press and Circular*, of London, entitled "Some Aspects of Rheumatism in Connection with Skin Diseases," and incidentally mentioning that psoriasis may be of rheumatic origin, cites a case classified therein as seborrhea. Dr. Burnet, who is a specialist on diseases of children, thinks that it might have been psoriasis, and that the skin rash referred to might have been due to rheumatism. In his opinion, most, if not all, cases of psoriasis met with in children are of rheumatic origin.

In a paper published in the *British Journal of Children's Diseases*, he says: "In childhood, at all events, psoriasis scarcely ever occurs save in rheumatic subjects. Often in questioning the parents, we find that one or other of them is rheumatic, and not infrequently there is a parental history of psoriasis obtainable. In further proof that psoriasis is a rheumatic manifestation, we have found great benefit from the administration of antirheumatic remedies."

Dr. Burnet believes that this subject (relation of psoriasis to rheumatism), deserves to be carefully studied, not only by dermatologists, but more particularly by pediatricists, who naturally see large numbers of rheumatic children. Practically every writer on the subject denies that psoriasis has any connection with rheumatism. This is evidently not the experience of Dr. Walsh, of the Western Skin Hospital, London, nor of Dr. Burnet. The latter cites the case of an adult patient in particular who had tried many remedies for a recurrent and very diffuse psoriasis, which yielded rapidly to antirheumatic treatment in the form of aspirin (acetyl salicylic acid) internally, and a salicylic acid paste applied to the skin. Dr. Burnet remarks that "if our contention is correct, then the nature of psoriasis becomes a simple matter, and its treatment is put upon a less empirical basis."

I have myself had some experience with psoriasis of the skin, and especially the finger nails, and the treatment by salicylates, and I agree with Burnet's contention. The skin affection in the first of my cases was on the body and scalp of a child, aged seven years, follow-

ing a severe attack of scarlet fever. The psoriasis of the body was punctate; that of the scalp seborrhoic, and diagnosed seborrhea sicca by an eminent New York dermatologist. The treatment had lasted four years. It was a most intractable affection as far as the psoriasis of the scalp was concerned, and finally was cured only when antirheumatics were employed.

The eruption on the skin of the body and arm yielded to chrysarobin locally, and ammoniated mercury in a salve with soft soap, which with vaseline as the base had failed utterly. Finally there remained the scalp affection which yielded promptly only when salicylic acid was administered internally, and ammoniated mercury applied to the piled up scales of each point among the hairs. This external application was the one used by Dr. Abraham of London. The soft soap addition was made by Dr. Max Joseph, editor of *Dermatologische Centralblatt*.

In this case I obtained my first proof that psoriasis in some cases (if not in all) was veritably rheumatic. A nurse girl who attended the child, dressed her hair, applying remedies, etc., became affected with a disease of the hands. In applying the remedy to the child's scalp she would pick off the scales with her nails and rub in the ointment with the fingers. Of her right hand the thumb, middle and little finger nails, and of the left hand the thumb, index, ring, and little finger nails became diseased. From handling with the fingers her toe nails became contaminated, every nail on both feet. That the disease was the same as that of the child there was no doubt in my mind, and that it was acquired in the way I have stated there is also no doubt. In treating this case with arsenic internally for a long time an improvement would result, but not permanently. Jonathan Hutchinson's treatment for such an affection of the nails as this is arsenic internally. The course of the case was as follows: The nails would leave the thickened bed from the free border first, and pile up masses of white scales beneath. The free edge of the nail when cut, appeared thickened and divided in thin hard plates. Sometimes this condition would run down the nail to the matrix, when a sort of whitlow would result. But as the nail grew out again the whitlow would cure itself. In scraping the nail, surface spots would be found in the diseased locality, chalky clear through to the nail bed.

All sorts of remedies were tried, such as scraping the nails thin, and applying iodine, oleate of nickel salve, pyrozone 25 per cent., caustic potash in dilute solution applied to the nail surface or to the free border of the nail bed, etc. No permanent relief was obtained.

Finally antirheumatic remedies were appealed to in our groping in the dark, so to speak, to find the exact remedy, and with the best result. The nails rapidly healed. In seeking for a local remedial agent, one had to be found that could be employed without disfigurement. In applying salves the fingers must need be wrapped up in bandages or the patient must wear gloves all the time. I first applied a salicylic acid ointment, but the patient would not adhere to the treatment, removing the application whenever desirable, such as while receiving visitors, or on going out, etc. I then found for her a remedy, mesotan (methyl-oxy-methyl-ester of salicylic acid), with an odor like that of lightning bugs, not at all unpleasant. It is a yellowish fluid, not greasy, and does not stain. It is rapidly absorbed by the skin, and can be poured beneath the free borders of the nails, when it quickly soaks through the piled up white scales directly to the skin beneath. There is no need to apply a rag or dressing, so that no one can observe that an application has been made to the fingers. This is a most important advantage, for the patients will pursue the treatment conscientiously and without interruption. In one month or somewhat longer, if the lifting of the nail was more extended down towards the matrix, a cure of the nail resulted. As soon as the nail had been given time to grow out, the new part was found to be sound. Thus every nail was in time cured.

Since using the preparation in this case, I have had the opportunity to try it once more in another of similar character, and with the same gratifying results.

The relation of rheumatism to skin and nail affections greatly modifies our treatment of them. Even if no rheumatic element is found present in these cases, inquiry will often show that the members of that family are prone to rheumatism. For instance, in the first case of nail psoriasis, the nurse girl's grandmother was living with a double cataract; the mother was deformed frightfully in both hands with chronic arthritis, and a younger sister, aged eleven years, had but recently died from acute rheumatism and endocarditis. The last case, a patient of mine, was seen by Dr. Janeway while I was treating the sister with the nail disease.

Most physicians recognize a general connection between the two conditions, rheumatism and psoriasis, but the latter has not yet been worked out by the dermatologists. One practical point is that anti-rheumatic remedies, notably the salicylates, combined with hot air baths, effect a cure in certain obstinate diseases of the skin (and its appendages the nails) unattainable in any other way.

REPORT OF A CASE OF BRAIN SYPHILIS.

By JOHN A. FORDYCE, M.D., New York.

THE patient, a man of wealth and education, aged sixty, admitted having had a genital sore about thirty years before the onset of his present disease. He consulted me for some difficulty in locomotion, and gave, with the aid of his wife, the following history:

In the spring of 1889, he experienced trouble with his eyes. He saw double, one object being above the other. He consulted a well-known oculist in New York, who told him that his nervous system and not his eyes were affected and advised him to see a physician. He did not follow this advice as his sight became normal and he had no return of the trouble.

Some months later, he began to complain of strange and indescribable sensations when he made any mental effort. He called it faintness, said he heard sounds like distant music, and felt he must stop doing at once whatever he was engaged in. Upon lying down for a few moments the disagreeable sensation would pass off.

About one year after the onset of his malady, while at dinner and although apparently perfectly well, he could not, for about two hours; remember where he had been or anything he had done during that day. Some weeks later he had a similar experience, when he sought the advice of a physician and was told that his affection arose from an impaired digestion, and he was treated on this supposition. The attacks became more frequent, until he had them daily. They came on without warning of any kind until later in his illness, when they were preceded by a feeling of cold or other aura. The essential symptom of his complaint consisted of loss of consciousness for a period of from fifteen minutes to half an hour. During this time his power of locomotion was not impaired, but he was apparently oblivious of what was transpiring about him. His face was void of expression and he showed no sign of comprehension when spoken to by any one except his wife; he obeyed her like an automaton. If sitting down or engaged in doing anything, he would remain in exactly the same position as when the attack came on, unless a change

was suggested to him by his wife. He showed no signs of distress except that he swallowed continually and with difficulty, as if his throat or mouth were dry. Sometimes the seizures came on in his sleep, the swallowing effort being the only indication of them. When recovering, he looked like one awakening from a deep sleep; his memory was quite absent for an hour or two; he could not remember even where he lived. During the attacks in question he seemed to have suffered some mental distress, as immediately after he almost invariably asked his wife if he was not in some great trouble, or if some misfortune had not come upon him, but when he recovered his mental equilibrium, he remembered nothing of his ill turns nor would he believe that he had had them, that part of his life being a blank. After several months' observation the case was pronounced one of brain tumor. He was seen by another physician who said it was a form of epilepsy, and he was treated accordingly but without improvement. His memory failed more and more, until he could not recollect what occurred from day to day. In the autumn of 1890, he was examined by a well-known neurologist, who made a diagnosis of softening of the brain (probably general paresis) and gave an unfavorable prognosis. He prescribed iodide of potassium in connection with general hygienic treatment. Very soon the attacks became less frequent and after six months ceased entirely. He remained in good health for two years, when both legs became swollen and another physician under whose charge he came, diagnosed Bright's disease. He subsequently developed a cystitis and passed through several attacks of heart weakness. For the past four years he had been in comparatively good health, his mind remained clear and he was capable of looking after his ordinary affairs. His memory was not quite as good as formerly, but otherwise no abnormal mental condition could be detected. He continued taking the iodide of potassium at intervals in doses of fifty to sixty grains daily during this time. When the patient came under my observation he had a marked œdema of the right lower extremity. His urine was found to be perfectly normal, he could empty his bladder voluntarily and no cystitis existed. His knee jerks were increased, but aside from this one symptom no signs of organic nervous disease were present. His gait was not ataxic, his vision was good and the pupils responded to both light and accommodation. No speech disturbance was noted. The sensibility of the extremities was not impaired.

At the suggestion of a neurologist, to whom I spoke regarding the case, I wrote to the oculist who made the first examination of the patient in 1889 for his diagnosis at that time. He replied that the eyes were absolutely normal, the condition being a scintillating scotoma, depending, he thought, on some functional nervous disorder. The absence of retinal changes or optic nerve atrophy, while not absolutely excluding brain tumor, was instructive as showing a probable freedom of the basal region of the brain as well as the occipital lobes from a pathological condition. The cerebral disturbance seemed to be altogether in the higher intellectual centers, simulating at one time a paresis, at another a psychical epilepsy, and again a brain tumor. The attacks were marked by periods of apparent freedom from any signs of illness, in these respects conforming to the usual course of brain syphilis, which is marked by great variability of symptoms as well as intervals of freedom from all manifestation of the disease. The unfavorable progress of the affection until the administration of the iodides, when a rapid improvement took place, could scarcely leave one in doubt regarding its nature. Whether the symptoms depended on a tumor or were due to a partial or complete obstruction to the circulation in a limited area of the brain from an endarteritis could only be surmised. Loss of consciousness without an accompanying convulsion or motor disturbance, recurring as it did, rendered the diagnosis of psychical epilepsy probable, a type which depends on an explosion in the anterior lobes or centers of higher intelligence, as the ordinary or motor epilepsy may have as a starting-point some irritation of the motor centers.

SOME NOTES MADE DURING A RECENT VISIT TO THE FINSSEN INSTITUTE AT COPENHAGEN

By JOHN A. FORDYCE, M. D.

IN addition to the great interest which is attached to the treatment of tuberculosis of the skin at the Finsen Institute in Copenhagen, a better opportunity is afforded for the study of the disease in its multiform manifestations than probably at any other place in the world. One can often see at the morning inspection of the patients as many as two hundred cases of the disease. It scarcely need be stated, therefore, that a broader conception of lupus and its relationship to other forms of skin tuberculosis must necessarily follow the observation of such an array of patients. It is not necessarily true that the percentage of lupus cases is greater in Denmark than in other countries as they are, of course, attracted by a method of treatment which by its results has attained such wide publicity. Lupus is seldom seen at the other dermatological clinics of the Danish capital because of the repute which the Institute enjoys for the cure of this intractable malady. A goodly number of patients come from Germany, Great Britain, other parts of Europe and occasionally from our own country.

Through the courteous attention of Dr. Forchhammer and Dr. Reyn I was enabled, during the several visits made to the Institute, to obtain some information as to the general methods employed in treating lupus, as well as some details in the technique and indications for the use of the Finsen light in this and other skin affections. The disease is treated here not only by phototherapy, but by other recognized methods which offer to the afflicted hope of relief. In lupus of the deeper parts of the nasal and oral cavities or larynx, the light cannot be used because of the impossibility of rendering the tissues bloodless, but it is employed on the mucous surfaces of the lips, eyelids and on the gums which are accessible to pressure. Wherever it is impracticable to use the compressors, the infiltration is treated by the galvano-cautery, or locally by the following formula:

<i>Iodin.</i>	1
<i>Potass. iodid.</i>	2
<i>Aq. dest.</i>	2

Lupus of the palate is painted daily or oftener with a mixture of equal parts of resorcin, balsam of Peru and mucilage—a modification of the formula proposed by Professor Boeck of Christiania.

Numerous instances were noted where lupus of the skin had followed ulcerating tuberculous gummata of the subcutaneous tissue and the so-called scrofulous lymph nodes. In ulcerating lupus X-rays are successful in healing the open sores, but it is claimed that they have little curative effect on the underlying nodular infiltration. After the ulcers are healed in this manner the Finsen rays are employed.

Dr. Forchhammer is disposed to attribute more importance to the question of secondary involvement of the skin after visceral tuberculosis than is ordinarily taught. The coincident appearance of numerous foci in the skin is difficult to explain by the theory of a local infection only. It is more rational to assume under these circumstances that the lesions are of embolic origin.

Recent untreated cases are the ones which respond most rapidly to the Finsen rays. Patients who have previously been burned or scraped are much more intractable to the use of the light. A few treatments will heal with little scarring a limited patch which had not previously been touched, but months or years may be required to cure an extensive involvement of the skin which is the seat of scar tissue and relapsing nodules from the curette and caustic.

Keloid and hypertrophic scars have not yielded to phototherapy: in fact in two instances keloid has developed in patients so treated. The results in alopecia areata have been satisfactory enough to encourage its continued use. A case of four years' duration was seen in which the hair had reappeared after the failure of all other treatment. In all recent patches the further loss of hair was prevented.

The light treatment of lupus erythematosus is not as curative as in lupus vulgaris. If the normal skin at the periphery of the patch is not shielded from the rays by the use of non-actinic paper, there may be an extension of the disease as the result of the procedure. About one hundred and fifty cases of this affection have been treated at the Institute with perhaps fifty per cent of cures. A treatment of half an hour daily is generally sufficient. In lupus vulgaris average daily séances of one hour and ten minutes are given to each patient by competent nurses. A different spot is chosen each day until the reaction from the preceding one has passed away. This may require about two weeks. Pigmentation

of the skin following the light reaction may last several months, but eventually disappears. The duration of the sitting may be longer or shorter than mentioned, according to the individual susceptibility and the nature of the disease.

The success of phototherapy at the Finsen Institute depends on the care exercised in its application, the experience of years in the management of such cases and the careful supervision of the patients so that relapses can be noted and treated. The intensity of the light obtained from the lamps in the Institute is probably also a potent factor in their results, as the light produced by many lamps made after the Finsen-Reyn model is too feeble to favourably influence lupus.

The time and expense required for the cure are also important considerations in the employment of this method in our public dispensaries. If equally good results can be obtained by the Roentgen rays, which is strongly denied by those in charge of the Finsen Institute, it is far more convenient, less expensive and time consuming. Further experience, however, will be required to determine the relative merits of the two modes of treatment and the exact indications for each. It must be granted though that phototherapy as used in the Finsen Institute cures the majority of cases of lupus of the skin with less deformity than could be hoped for before the brilliant conception of its founder.

EDITORIAL.

DEPILATION BY THE X-RAY.

EXACT dosage in order to produce a desired result without incurring the dangers of an excess is, of course, one of the most difficult problems in radiotherapy. While it is true that without the courage of the innovators, little progress could be made, nevertheless, the saying of the Greek sages *Μηδὲν ἄγαν* ("Nothing too much"), should be kept constantly in mind. The great results obtained in the treatment of ringworm of the scalp by Sabouraud, and especially his careful details as to technique in order to obtain depilation from one séance without risk of unpleasant results, are, or should be, familiar to all workers in this field.

MacLeod, of London, has treated over sixty cases of ringworm, all of the small-spored variety, at the Charing Cross Hospital and Victoria Hospital for Children, London, with marked success. In the *British Medical Journal*, July 1, 1905, he gives a detailed description of his technique and procedure of treatment, and in the September 16, 1905, issue of the same *Journal* he pictures and describes an X-ray stand and the various attachments for determining the exact dosage necessary to produce a defluvium of the area exposed at one sitting. For, as he insists, "If the treatment of ringworm by the X-ray is to be a practical success and a real saving of time, it is necessary to produce a clean defluvium of the area exposed without impairing regrowth. As the effects of the ray are cumulative, to have to give repeated exposures seems to me (him) to subject the patient to greater risk, and certainly with the long exposure of about fifteen minutes it is unsafe to re-expose the same area for at least twenty-one days." That these dangers are real is shown by the report of a case by Nobl before the Vienna Society of Internal Medicine and Children's Diseases (*Abstr. Jour. Mal. Cut. et Syph*, 1905, p. 612). This case was a young boy who had been exposed to three séances of ten to twelve minutes for a psoriasis of the scalp. A few weeks after, the hair fell out and a chronic ulcerative process developed which left the scalp permanently bald with thin, shiny skin, showing here and there cicatricial, sclerodermic patches and dilated vessels.

MacLeod used a "dipper" mercury break and a twelve-inch spark coil. Connected with the break is an instrument known as a "speed counter," which records on a dial the number of plunges of the dipper into the mercury of the break. The dial is divided into fifteen divisions, each of which are subdivided into two. Each subdivision indicates 500 plunges of the dipper into the mercury, and when the indicator has passed once round the dial 15,000 plunges, or "makes" and "breaks" of the primary current are recorded. The dipper is adjustable and is fixed so that it will plunge one centimeter into the mercury and the speed of the break is regulated so that it will give about 1000 plunges per minute.

To produce a defluvium at one sitting he gives the following conditions as adequate: "(1) A tube of such tension that the rays from it show 3 to 4 degrees of penetration as indicated by the radiometer; (2) a spark-gap of about 10cm.; (3) a current of about two-fifths of a milliamperé in the secondary circuit; and, (4) about 16,000 interruptions of the primary current. Before exposing the scalp, the tube is regulated to fulfill the above conditions, and an exposure is then given, which is continued till the indicator on the speed counter records 16,000 interruptions, the Sabouraud pastille being examined occasionally to avoid going beyond the required tint, and the state of the tube being kept constant as possible during the exposure by means of the regulator and the resistances.

The patient's hair is clipped short and the scalp is treated with suitable antiseptic ointment until all scurfy or impetiginous conditions are removed. The ringworm areas are marked out a quarter of an inch beyond the margins with a blue pencil. The patient is placed either on a chair or on a couch. A lead glass cylinder of suitable diameter to the area to be exposed is fitted to the protecting shield. The length of the cylinder is such that with the scalp opposed to the end of it the anode of the tube shall be six inches away. The various diseased areas are then exposed seriatim.

In widely disseminated ringworm the entire scalp is exposed as follows: "The largest cylinder, which has a diameter of 9cm., is fitted to the shield, and the scalp apposed to it. A brown band is then painted round outside of the cylinder with tincture of iodine to mark the exposed area, and the exposure is given; then by moving the cylinder another area is similarly treated, and so on till the whole of the scalp has been exposed with the exception of the irregular figures painted with iodine between the circular

patches. The patches are then covered with exactly fitting circular discs of lead foil, which are held in position by elastic bands, and the irregular, unexposed areas subjected to the rays. By this procedure about twelve exposures are necessary to include the whole scalp. The result, however, is more satisfactory than by attempting to expose larger areas than that which can be done by the 9 cm. cylinder, for only the central portion of an area larger than that is properly exposed, while the periphery is done insufficiently." H. G. Adamson agrees with Sabouraud and MacLeod as to the need of giving the necessary dose at one sitting. Where the disease is extensive he prefers to divide the scalp into four areas for separate exposure—namely, the vertex, the occiput, and the two sides—using lead foil shields in the manner described in the *Lancet*, June 24, 1905. W. C. Oram has treated over fifty cases by frequently repeated exposures watching the reaction and depending upon the skill and experience of the operator to avoid burns or permanent alopecia, results which he, so far, has not observed in his cases. Dr. Fred Wise, House Surgeon of the New York Skin and Cancer Hospital, in a letter replying to a request for statistics as to cases treated at the Skin and Cancer Hospital, says that they have treated 14 cases of disseminated scalp ringworm, 3 cases with only one or two patches, 22 cases of trichophytosis of the beard, one case of trichophytosis of the leg, and 5 cases of favus. Two of the 14 cases of disseminated ringworm are still under treatment; five are in the hospital, apparently cured, as no fungus can be found; seven discharged cured. One case of ringworm had been cured of favus by the X-ray, but was infected with ringworm in the children's ward a short time after the hair had begun to grow in. In this case four exposures, ten minutes each, brought about a disappearance of the ringworm fungus without adjuvant treatment. The child was discharged four months ago, and now has a good crop of hair, without recurrence. All cases of disseminated ringworm are exposed until the head is completely bald. The average number of exposures required for a complete defluvium is fourteen. Soft tube, ten minutes, distance fourteen centimeters from target, resistance three inches, static machine. Nearly all the cases showed erythema and two cases had a burn of the second degree, due to the inexperience of the operator. No recurrence has been observed (microscopically) in the cases discharged cured. The head is bathed with a bichloride lotion every day and protected with gauze. Of the five cases of favus, four have been cured and one is still in the hospital

under treatment. None of these cases was burned, but two have a large cicatricial area on the occiput with permanent alopecia, due to the disease.

Of the twenty-two cases of *tinea barbæ*, all of whom are out-patients, at least one-third showed recurrences after a lapse of four to eight weeks. All cases are verified microscopically before treatment is given. It is almost impossible to find the fungus in cases with recurrences, and these cases look more like *sycosis vulgaris*.

It is rather a sad commentary on the shortsight of the Directors of the Randall's Island Hospital, where over forty cases of favus are under treatment, to refuse the installation of an X-ray plant, but prefer the much more expensive method of prolonged hospitalization and antiquated methods of depilation. An extra month's board of these forty cases alone would suffice to pay for an X-ray plant.

CORRESPONDENCE.

NEW YORK, Oct. 9, 1905.

Editor Journal of Cutaneous Diseases.

SIR:—I have read what Dr. Arnold has had to say on the subject presented by my contribution to the May number of your JOURNAL. I can reach no opinion other than it is more effective to make no extended reply to it. My paper and the attack upon it are before the jury—those of the readers of the JOURNAL who are interested in the subject are the jury of qualified competency to pass upon any issue raised by the two communications; and even the jury may not be united in an opinion; nor will each of them have the interest that I have in the subject, nor the equipment. The critic seems to have as much fault to find with form as he does with fact. Faulty anthropology will correct itself before the jury; therefore no allusion to it is required. To reply along the lines which seem to suggest themselves make necessary the bringing forward of material which would be better disposed when the subject of Japanese race antecedents becomes a matter for deliberate inquiry, which it is quite likely to become, then the formal paper will be effective.

The vicious animus displayed is best combatted by being ignored, and the attitude of "Shoo fly, don't bother me." To reply in kind, or with a betrayal of irritation is always a tactical mistake.

To the innuendo against my official designation in Tokio, I give no thought now, and reserve my material for a more important occasion, should the use of that material become necessary. It is not judicious to refer to him as a "microscopist." He seems anxious to become involved in personalities, and is pulling the sleeve of Professor Baelz.

It is my best opinion, that I should ignore his article from every point of view.

The first wish and duty of an honest man is to use a "just weight and balance," and really to understand a subject before he attempts to criticize another. A fair-minded man would only want to consider which side had presented the strongest argument or the greatest array of facts.

Intelligence and a tone of mental fairness, acquired only after years of severe discipline, in painstaking scientific research, have taught me to follow my facts and not to attempt to get in front of them.

This practice prepares the just man to accept in good faith an honestly rendered verdict.

Very Truly Yours,

ALBERT S. ASHMEAD, M.D.

Late Foreign Medical Director, Tokio Hospital, Japan.

SOCIETY TRANSACTIONS.

NEW YORK DERMATOLOGICAL SOCIETY.

335th Regular Meeting, September 26, 1905.

Dr. GEORGE H. FOX, President.

Mycosis Fungoides, Lichenoid Stage (Case Previously Shown). Presented by Dr. MEWBORN.

This case was shown before the Society at the May meeting and is reported in the *Journal*, July number, page 316. Since the last meeting the eruption disappeared almost completely for about two months. At present the eruption on the abdomen and thighs, by daylight, is almost typical of lichen planus. On the legs there are patches of eczematization (exudation and crusts), with, in places, a distinctly papillomatous character. There are no mucous membrane lesions. The face shows marked lichenization, but no signs of eczema. The patient is at present suffering from rather severe asthmatic attacks.

Dr. KLOTZ adhered to his former diagnosis of somewhat atypical prurigo. He suggested the employment of pilocarpine hypodermatically. At the German Hospital he had employed this remedy, commencing with one-tenth of a grain, gradually increasing the dose to one-third of a grain. He admitted that the physiological effect of the drug must be closely watched and hence this treatment was not adapted to dispensary practice.

Dr. JACKSON said there was undoubtedly a chronic lichenification, whether from disturbance of internal metabolism or neurotic cause he could not say.

Dr. SHERWELL was inclined to regard the case as one of commencing sarcomatosis. The long continued irritation of repeated attacks of eczema he thought might in some cases eventuate in the development of tumors. There was present a marked infiltration, the skin was everywhere thickened, and in places pigmented nodules were present.

Dr. FORDYCE thought it impossible without further study of the case to make a diagnosis. He thought the case presented much less the appearance of mycosis fungoides than when previously shown. He thought the asthmatic attacks probably had a bearing on the severity of the symptoms.

Dr. BULKLEY did not agree at all with the diagnosis of mycosis fungoides. He considered that the chest was singularly free from lesions for the amount of involvement of the arms and legs. The lesions were, moreover, too hard and dry. The papillomatous patches on the legs were not uncommon in chronic cases of eczema. He thought a rubber bandage might aid in reducing the infiltration of the legs.

Dr. Fox granted that it was easier to say what the case was not, than what it was. He did not think it was mycosis fungoides, lichen planus, or eczema. He was inclined to agree with the opinion of Dr. Klotz that it was a prurigo. He would also agree with the opinion expressed as to the advantages of pilocarpine in such cases. It was quite interesting to note the gradual softening of the skin after an activity of the sweat glands had been excited. He had frequently used the drug in one-tenth to one-third of a grain doses. The patient must be in hospital, however, to be carefully watched.

Mycosis Fungoides. Presented by Dr. Fox.

Bessie F., married, aged thirty years, native of Russia. Entered the Skin and Cancer Hospital, October 18, 1904. The patient gave a history of chills and fever coming on five months ago, followed by the development of erythematous patches all over the body. These patches were discrete at first, coalescing until the skin became scaly, infiltrated and œdematous. The itching and distress was intense. At first the diagnosis of pityriasis rubra was made. The first ulcer appeared on the chest April 4, 1905. A microscopical examination confirmed the diagnosis of mycosis fungoides. Under X-ray the disease has almost disappeared, only a few eczematous patches were left.

Pemphigus Vulgaris. Presented by Dr. Fox.

Julia V. N., aged forty-four years, native of France, single. Entered the Skin and Cancer Hospital, May, 1905, with a typical eruption of pemphigus vulgaris. The eruption first appeared six months ago as a vesicle on the chin. Vesicles and bullæ gradually developed all over the body from the neck downwards. Patient gives history and shows evidence of rheumatoid arthritis. The treatment given has been a tonic one of iron and arsenic. At present the lesions appear as tense bullæ almost daily. On the chest and legs the lesions are particularly persistent.

Dr. KLOTZ was inclined to question the diagnosis of pemphigus on account of the many inflammatory signs present.

Dr. SHERWELL regarded the case as one of Duhring's disease rather than pemphigus.

Dr. Fox said that the atrophic changes beginning in the face were quite characteristic. In regard to the treatment he had found in this case that nothing had given so much relief as plain vaseline (Cheeseborough). In this case if one side of the body were anointed with vaseline and the other with any of the usual

ointments or pastes, the vaselined side felt the more relieved from the usual irritation.

Dr. SHERWELL found that in about ten per cent. of his cases, vaseline caused more irritation.

Scrofuloderma. Presented by Dr. Fox.

Annie McM., aged twenty years, single, entered Skin and Cancer Hospital, March 25, 1903, for the first time.

The disease for which she sought relief had made its appearance a year and three months previously, as papules on the back and extremities. These papules break down and ulcerate, leaving sharply defined ulcers. Under curettage and tonic treatment she was discharged recovered. In June of this year she returned with relapse as here shown. She is treated with mercurial plasters, curettage and syrup of the iodide of iron.

Trichophytosis (kerion) of the Scalp, Treated by the X-ray. Presented by Dr. Fox.

Harold A., aged eight, United States. Entered Skin and Cancer Hospital for a kerion which has been in existence for two years. He has been given fifteen exposures to a soft tube, twelve inches distance. Ten minutes exposure at each séance. The hair has all fallen out and the nodules have flattened down although not entirely well.

Trichophytosis Capitis Treated by the X-ray. Presented by Dr. L. D. BULKLEY.

R. B., female, aged twelve, has been in the Skin and Cancer Hospital for two years. Numerous methods and remedies have been employed at different times, with unsatisfactory results. Ten weeks ago X-ray treatment was begun. A low vacuum tube, at a distance of twelve inches for ten to fifteen minutes at a time. The hair began to fall out after the sixth application. In all, the child has received twenty-five exposures. The head is now absolutely bald. Repeated microscopical examinations fail to reveal the trichophyton.

Trichophytosis Capitis Treated by the X-ray (3 cases). Presented by Dr. BULKLEY.

The disease in these children has existed for one, two, and three years, respectively. All methods of treatment have proved futile. Seven weeks ago they were placed under X-radiations, receiving about twenty exposures in all for each case. The exposures were given at irregular intervals, as the static machine did not generate a sufficient spark on damp days. The exposures lasted ten minutes and were given at a distance of twelve inches from the target, with a low vacuum tube, 3 c.m. resistance. Depilation has been complete and no trace of fungus can be found. One of the cases received a burn of the second degree which caused little pain

or inconvenience and was treated by an ointment of ichthyol, calamine and balsam of Peru.

Dr. JACKSON said that the result seemed to be a good one, but he did not think there was any necessity for exposing the head to the X-rays daily for seven weeks. He wondered why they had not employed Sabouraud's method of single exposure, timed by the use of his discs, which was followed by a fall of the hair. It would be economical as to time. After all, all that was desired was to have the hair fall out, and there was no reason for further use of the rays after that was accomplished.

these ringworm cases had been submitted. Aside from the danger of burns and

Dr. MEWBOEN protested against the excessive number of exposures to which permanent alopecia, there was danger of producing an atrophy or scleroderma with telangiectases. The great merit of Sabouraud's work had been the emphasis upon the necessity of so regulating the dosage as to produce depilation in one séance.

Dr. HOLDER said that there were perhaps forty cases of favus at Randall's Island Hospital. The Department of Charities had refused to buy the necessary X-ray outfit, although recommendations had been made by the Medical Board.

Dr. FOX said that hitherto these cases had been most refractory to the parasitocides recommended in the text-books. He described a case in private practice of favus which had been treated for ten years by epilation, parasiticides, etc., without effecting a cure. Under the X-ray complete alopecia had been induced and the patient now had a beautiful growth of hair.

Erythematous Eczema, Two Cases. Presented by Dr. FOX.

Both patients are men whose occupation causes them to be frequently exposed to extremes of heat. Both are large, robust and otherwise healthy men, of forty-five and fifty-two years of age, respectively. The disease affects principally the middle zone of the face and has lasted for fifteen years with periods of exacerbation and improvement.

Dr. KLOTZ said the exposure to steam and heat by these men in their daily occupation favored indefinite recurrences.

Dr. SHERWELL said these cases were well shown in Duhring's atlas. He always used constitutional treatment such as antilithics, wine of colchicum, ergot, etc., in connection with local treatment in these cases. He frequently saw such example in farmers of forty-five years or more, men of active lives and robust systems with rheumatic diatheses. "Hay-seed eczema" he called it. In addition to the face, the arms, elbows, and legs were affected.

These were cases of defective metabolism as shown by the high specific gravity and acidity of the urine and stools. If the diet were restricted, the bowels regulated, antilithics and colchicum given internally and lotions of emulsion of bitter almonds and corrosive sublimate or carbolic lotion and aqua calcis externally, they got well.

Mycosis Fungoides. Presented by Dr. BULKLEY.

John H., aged forty-five, native of Germany, was treated in Berlin four years ago by specialists, for a chronic eczema. He would improve for a time, but always had relapses. He was admitted to the Skin and Cancer Hospital, March 29, 1905. At that time the skin presented a generalized lichenization as in chronic eczema with excessive pruritus.

His condition grew worse, and two months after admission an ulcer appeared on the left side of the chest. Dr. J. C. Johnston made the pathological diagnosis of mycosis fungoides. Ulcers soon after appeared on the trunk and extremities. Patient was put upon daily treatment by the X-ray. The entire body was exposed to the low tube at a distance of twelve inches, for one-half to one hour a day. He has had about eighty séances in all. All the ulcers have disappeared within one month after radiation was begun. The patient left the hospital in good condition; no skin lesions in June last. In August the patient returned with five ulcers upon the scalp. The scalp had not been exposed to the ray before. Four of these ulcers were healed after seven exposures and the fifth is in process of healing.

Acute Pemphigus Vulgaris. Presented by Dr. BULKLEY.

Alex. S., aged forty-five years, native of Austria, painter of enamel by occupation. With the exception of an attack of gastritis four years ago, patient has been well until present illness began. Four weeks ago the disease began with the development of blisters in the mouth, on the tongue and palate. He complained of inability to swallow and soreness about the mouth. He sought relief at Mt. Sinai Hospital. A week later an eruption of vesicles and bullæ appeared all over the body. He felt comparatively well except an itching. On admission, the patient had a large number of vesicles and bullæ on arms, neck, trunk, axillæ and groins. These bullæ were tense, filled with a clear serum, rising abruptly from non-inflammatory base, and varied in size from lentil to the size of a five-cent piece. The patient is anæmic and seems considerably depressed mentally and physically.

Dr. SHERWELL recalled a case of pemphigus foliaceus in which bullæ as large as a goose egg had formed. Bullæ had developed on the tongue and there had been two or three relapses. He had treated her locally with raw linseed-oil, applied almost as a bath; the patient lying in a rubber sheet, the oil being mopped on from time to time. This patient was to-day a buxom and hearty woman, entirely well. This case was reported in the Archives of Dermatology, nearly thirty years ago, and was accompanied by an illustration.

Psoriasis With Severe Dermatitis From Treatment. Presented by Dr. BULKLEY.

R. H., female, aged twenty-three years, single. Patient has been in hospital three times since 1902 for an obstinate psoriasis. An ointment containing red iodide of mercury (5 per cent.) and ammoniated mercury ointment (10 per cent.), which had been used with beneficial results previously, now causes an intense dermatitis every time it is applied. At present she is being treated with a lotion of oleum rusci, two parts and alcohol one part, with good results.

Duhring's Disease. Presented by Dr. Fox.

James C., aged twenty-seven years, and American. Disease began about a year ago and presents a typical eruption of dermatitis herpetiformis, with the exception of the lesions which appeared on the neck last May. These lesions resemble a pemphigus on account of size and lack of inflammatory bases. The patient gets well and has relapses without much noticeable effect from the arsenical treatment. The itching is always intense but the general condition remains good.

Pityriasis Rubra. Presented by Dr. Fox.

Anne D., aged sixty years, native of Ireland. Entered the Skin and Cancer Hospital, May, 1905. Disease began "a year ago last September." Chill, fever, delirium at the outset. Skin became erythematous with intense itching, infiltration and in patches profuse serous exudation, and scaly desquamation. When first seen the diagnosis of general eczema was made. At present the patient frequently desquamates in large patches as in dermatitis exfoliative. Under X-ray treatment the induration and infiltration of the skin has lessened considerably while the pruritus has been entirely relieved.

A. D. MEWBORN, *Secretary.*

REVIEW of DERMATOLOGY AND SYPHILIS

Under the Charge of JOHN T. BOWEN, M.D.

MALIGNANT NEW GROWTHS.

By ELIZABETH C. JAGLE, M.D., New York.

Spirochaetae in Ulcerating Carcinomata. E. HOFFMAN. (*Berl. klin. Wochens.*, 42, No. 28, 1905.)

Three cases of ulcerating carcinomata were examined, one from the cervix and two from the skin. The majority of spirochætæ possessed the characters of the *Sp. refringens*, but there was also present a finer and more delicate form, which the untrained eye would have difficulty in differentiating from the *Sp. pallida*. In the main, the organisms showed fewer spirals, were thicker and took a deeper stain than the *Sp. pallida*, but a few showed very close resemblances. In addition there were numerous bacteria, among them the *Bac. fusiformis*, and also forms which might be interpreted as developmental stages of the spirochætæ. They were sickle-shaped and with the Giemsa stain showed red chromatin-like bodies in the blue plasma.

Malignant Tumors in Mice. P. EHRLICH and H. APOLANT. (*Berl. klin. Wochensch.*, 42, No. 28, July 10, 1905.)

The investigations covered a period of over two years, during which 164 mice were inoculated. Out of 71 primary tumors, only 10 proved transmissible. Age and sex did not appear to have any special influence. The continued transplantations brought out two important facts: 1. That the original energy of growth varies markedly in the different strains. 2. That successive inoculations in the majority of tumors showed a distinct increase in virulence. These variations in energy find their histological expression in rapidly growing tumors, in the formation of thick solid strings and nests of cells with extensive degeneration: while in those of slower growth there is a tendency to an alveolar structure with little degeneration.

In one instance an adeno-carcinoma which had been inoculated through several generations suddenly became a mixed tumor, a spindle-celled sarcoma developing and crowding out the carcinoma cells. As a pure sarcoma, then, it was inoculated through twenty-six generations without modification. Simultaneous inoculation with carcinoma and sarcoma cells resulted in the production of a mixed tumor, but after two or three generations, the carcinoma elements always predominated. In explantion, the authors suggest that the chemism of the carcinoma cell, in the course of continued transplantations, so changes that products form which stimulate the connective tissue cells to metaplastic growth. Another possibility is that the connective tissue passing over with the cancer cells is grafted upon a new soil where it finds the conditions favorable for increased proliferation.

Final Results in the X-ray Treatment of Cancer, Including Sarcoma.

WILLIAM B. COLEY, M.D. (*Annals of Surgery*, August, 1905.)

For a period of over three years Dr. Coley has made an earnest endeavor to determine the value of the X-ray in the treatment of malignant growths and comes to these conclusions:

First—That the X-ray exerts a powerful influence upon cancer cells of all varieties, but most marked in cases of cutaneous cancer.

Second—In some cases, chiefly in superficial epithelioma, the entire tumor may disappear, probably by reason of fatty degeneration of the tumor cells with subsequent absorption.

Third—In a much smaller number of cases of deep-seated tumors, chiefly cancer of the breast and glandular sarcoma, tumors have disappeared under prolonged X-ray treatment. In nearly every one of these cases, however, that has been carefully traced to final result, there has been a local or general return of the disease within a few months to two years.

Fourth—In view of this practically constant tendency to early recurrence, furthermore, in the absence of any reported cases well beyond

three years, the method should never be used except in inoperable cases, or as a prophylactic after operation, as a possible, though not yet proven, means of avoiding recurrence.

Fifth—The use of the X-rays a pre-operative measure in other than cutaneous cancer is contraindicated (a), because the agent has not yet been proven to be curative; (b), because of serious risks of an extension of the disease to inaccessible glands or to other regions by metastases during the period required for a trial of the X-ray.

Tumors in Mice. M. HAALAND. (*Ann. de l'Inst. Pasteur*, No. 3, March 25, 1905.)

This is an interesting and instructive paper with plates of sections of tumors from different laboratories. On the work done he bases the following conclusions:

First—In the white mouse, one meets different forms of epithelial tumors, which in general show the characters of malignant growths, with cachexia and death of the animal. Certain forms show great resemblances to those found in man.

Second—The type most frequent in mice shows many of the characters of an infection: in certain breeding places being endemic or epidemic. Many mice, free from tumors will develop them when inoculated ones are kept in their cages.

Third—Three of the forms produced metastases, two by the blood and one by the lymph stream. Cancerous cells could in certain cases continue to develop if grafted in another organism: properly speaking, a metastasis in another animal. These grafts are influenced by many factors not yet understood, as the biological characters of cells of different tumors, strains of mice, etc.

Fourth—Sometimes small tumors in the lungs of cancerous mice seem to be produced at the expense of the lung tissue itself and not from the metastasis. It is permissible to ask if in this case the supposed cancerous virus has not been transported to the lung and caused the epithelial cells of that organ to proliferate.

Fifth—The intracellular inclusions he explains by the penetration of leucocytes which have undergone karyolysis and dissolution.

Acanthosis Nigricans Following Cancer of the Breast. DR. MENAHEM HODARA. (*Monatsh. f. prak. Dermat.*, Bd., 40, No. 12.)

The case, a woman of thirty, was presented to the Constantinople Medical Society by the reporter. She stated the acanthosis first appeared two months after the beginning of the cancer. The skin about the mouth and nostrils became dark-brown to black, thickened and showed numerous small furrows and small warty elevations. After extirpation of the breast there was considerable improvement, especially in the face: the color was lighter and the disease seemed at a standstill. Six months

later, however, it began to advance more rapidly than before, involving the whole face, neck, trunk, axillæ, flexures of the elbows and genitalia. Especially noticeable was the absence of pigmentation in the operation scars. The patient appeared in excellent health, there being no sign of recurrence of the cancer. The condition was very much improved by painting with a strong solution of sublimate in collodion, removing the warts and giving arsenic internally.

Some Conditions Determining Variations in the Energy of Tumor Growth. LEO LOEB, M. D. (*American Medicine*, Vol. 10, No. 7, August 12, 1905.)

The author asserts that, provisionally, two variable factors determine the rate of tumor growth: 1. Certain conditions present in the organism and probably, in part at least, in the lymph and blood of the animal in which the tumor is growing. 2. The energy of growth of the tumor, either inherent in the tumor cells or modified by certain environmental conditions other than those named under No. 1.

From his experiments he makes the statement that the rate of growth is not only influenced by species into which it is transplanted, but also by variations existing among individuals or families of the same species. A condition of active immunity can, under certain conditions be experimentally produced, and this active immunity is accompanied by or due to the presence of certain substances inhibiting the growth of the tumor. Whether in the blood-serum of animals naturally immune against the growth of inoculated tumors, such substances are likewise present remains yet to be determined, the serum apparently having been tested so far only in animals which had been previously inoculated with tumor material. The energy of growth can be increased through successive transplantations up to a certain maximum. It is also possible to cause an experimental decrease in the energy of growth. In the course of tumor inoculations, it not rarely happens that certain ones remain stationary or retrogress even spontaneously. This is especially found in the course of later inoculations, and it probably indicates that after many inoculations one or several of the factors determining a vigorous tumor growth become gradually weakened. Contact metastases may occur and tumors which morphologically are similar or identical behave differently in this respect, and so the utmost care should be exercised to prevent a tumor from touching the wound during extirpation.

One more conclusion is that at the bottom of all tumor growth must lie an increased energy of growth of those cells from which the tumor took its origin. The growth cannot be due to a lowered resistance of the organism in which the cells carry on their apparently unlimited multiplication. This follows from the fact that in a sufficiently large number of cases it has been possible to so make tumor cells continue their destructive growth in a very large number of animals of the same species, and it is found

502 REVIEW OF DERMATOLOGY AND SYPHILIS.

frequently that such inoculated tumors grow more rapidly than the original one. On the other hand, if only ordinary tissues are transplanted, they have only a very limited growth.

Five Cases of Carcinoma of the Male Breast. CHARLES R. KEYSER, F.R.C.S., England. (*The Lancet*, May 28, 1904.)

In reporting this condition, the writer reviews the cases found in the rather sparse literature on the subject and gives the history of his own, three of these being the ordinary scirrhus type, the fourth a soft spheroidal-celled carcinoma and the fifth a squamous-celled epithelioma. Another interesting case noted is that of a man who two years previously had received a bite from a horse on the left breast. On examination it seemed to be in a condition of simple hypertrophy: later it was looked upon with suspicion and removed. Histologically, the growth was a fibro-adenoma. Two years later the man returned with a second fibro-adenoma in the right breast.

As the disease does not follow quite the same course in men as it does in women, the following differences are formulated:

First—The average age is very much later in men, from his collection of cases, being 61.5 years.

Second—In women, carcinoma is found more often on the left side, while the opposite is the case in men, occurring nearly three times as frequently on the right as on the left side.

Third—The average duration is greater in men.

Fourth—Ulceration appears to be present in more than half the number of cases, and a previous history of injury is more definite in men than in women. The growth frequently starts in and around the nipple, and while this is also true of women, in the latter the neoplasm is usually a duct carcinoma, whereas this form is exceedingly rare in men. The treatment, of course, is the same in both sexes.

On the Behavior of Leucocytes in Malignant Growths. By FARMER, MOORE & WALKER. (*The Lancet*, August 5, 1905.)

The phenomena which the observers describe appear to be mainly, if not entirely, restricted to carcinoma in its earliest stages, and did not occur in older growths, metastases or grafts. In a rectal cancer, for example, that had hardly attained the size of a bean, there was a distinct zone of transition from the normal to the cancerous elements around the periphery of the tumor. Immediately within this outer zone the leucocytic crowding was most strikingly apparent and in a number of cells it was easy to discern the presence of leucocytes which had invaded the epithelial cells, where they stained readily as an inclusion. This phenomenon did not occur in the adjacent healthy tissue nor in inflammations produced artificially. The most important, as well as the most singular, feature about the intrusion of the leucocytes lies in the fact that neither they nor

the invaded tissue appeared to be affected injuriously. In many instances it was found that the leucocyte and the tissue cell were dividing mitotically at the same time. The authors believe that a mixture of the chromosomes derived from the leucocyte and tissue cell respectively, is distributed between the daughter nuclei resulting from the mitosis. In this way a complete disturbance of the chromosome constituents of the cell will be effected and the distribution must be of a qualitative as well as of a quantitative character. Its relation to the ultimate reduction that occurs in neoplastic cells must be further investigated.

Paget's Disease of the Nipple. Prof. Dr. HUGO RIBBERT. (*Deut. Med. Wochensch.*, No. 31, August 3, 1905.)

In this article Prof. Ribbert describes a case of Paget's Disease and a mammary carcinoma with eczematous changes in the skin to illustrate his views on the nature of cancer. He does not believe that Paget's Disease is a primary skin carcinoma, and he denies that the cancerous cells found in the epidermis are metamorphosed epithelial cells which form the basis of a malignant proliferation. They are the result of a deeper growth developing independently of the skin and the mass increases only through multiplication of its own cells; only that is in this case extension is not prevented by septa, but progresses by a marked intra-epidermal migration of cells. This view is another argument against the theory that the essential feature in cancer is a degeneration of epithelial cells. The genesis of cancer is not concerned then with the new varieties of cells or with primary metamorphoses, through which cells become endowed with the power of proliferation and tumor formation. This they already possess, but it must be set free, and the conditions under which this occurs must be further understood to arrive at a fuller comprehension of the phenomena met with.

The Parasitic Theory of Cancer. E. v LEYDEN. (*Berl. klin. Wochensch.*, 42, No. 13, March 27, 1905.)

In defending his theory, the author admits that trauma, embryonic inclusions, etc., may favorably influence the development of cancer and calls attention to the more frequent location of malignant growths in organs or tissues which communicate with the exterior. He also points out its distribution through the animal kingdom—in man and the domestic animals, especially those in the neighborhood of hospitals and pathological institutes. Geographically, it occurs often in temperate zones and where the population is denser; negroes in Africa being free, while those in North America are equally affected with the whites. Touching on transplantation of tumors, he says if such a piece of tissue is inoculated into another individual and grows, finally resulting in death, then the process is the same as when a patient is inoculated with a disease—it is an infec-

tion—and he cannot comprehend how, along the line of Ribbert's theory, a cell when it begins to multiply can bring about such deleterious results as seen in tumor formation. The transplantation of tumors through several generations of animals would suggest the existence of a parasite which grows and multiplies in the cell, stimulating the latter to growth. Accepting this, the question of first infection still remains—How does the first inoculation or formation of the first cancer cell take place? That the germ enters the body from the outside seems to him most probable.

Histologically, cell inclusions cannot be sharply divided into degenerations on the one hand and parasites on the other; but one must be able to distinguish between them, and Dr. v. Leyden interprets in his specimens the capsuled bodies as parasites. They are intracellular, spherical on cross section and have a central dot. In some preparations the capsules have burst and the contents empty into the surrounding tissue. From his chemical experiments the deductions are that the cancer substances, as pigment and albumoses, differ from those in the normal body, the cells are less resistant to digestive juices, and finally, a ferment was found in the cells which not only brought about autolysis of the specific cells, but also of the body cells.

On the Morphology of Carcinoma and the Parasitic Theory of its Etiology. By Geheim-Medizinalrath Prof. Dr. JOHANNES ORTH, of Berlin. (Read before the surgical section of the International Congress of Arts and Sciences, St. Louis, September 23, 1904 and published in the *Annals of Surgery*, December, 1904.)

Morphologically, said Prof. Orth, the characteristic and distinguishing feature of cancer cells was their epithelial structure, biologically and genetically; while one kind of epithelium can be transformed into another kind, there can be no metaplasia from connective tissue into epithelial or cancer cells or vice versa. There are growths in which the transformation of preformed epithelial cells into cancer cells takes place continuously in the tissue bordering upon the margin of primary tumors, also there are multicentric cancers, not only in the sense that the change takes place at the same time in different neighboring spots, but also that one spot becomes cancerous later than another. At the same time Dr. Orth recognizes that many are unicentric, *i. e.*, have arisen from a single complex only, possessing an interstitial but not a contiguous growth. A strong support for the conclusion that all cancer cells originate in regular succession (by inheritance) from preformed epithelium lies in the innumerable mitoses of secondary growths and the fact that detached cancer cells in the lymph spaces of lymph glands and in blood vessels represent the starting point of new nodules. Serial sections show in embolic formation in lung or liver that a cancerous exuberant growth in the neighborhood of

vessels always takes its exit from a growth through the wall; a continuous connection between embolus and perivascular tissue is always present. Of very special importance for the assumption that all the cells of a secondary cancer have arisen from detached cells of an already existing cancer, is the suppression of the local cells at the point of the new growth. All this goes to prove that the epithelial cancer cells form the essential and only important element; the stroma he considers without significance. Every cancer must be designated as epithelioma, and in order to differentiate it from other epithelial new growths, it can be named malignant, destructive, or aberrant. Two groups of the latter are distinguished: (1) those with typical arrangement of cells in alveoli or strata, (2) an atypical arrangement in masses or patches, with fewer distinct peculiarities, which differ according to the particular organs in which the parent growth originated.

As for its parasitic nature, if, primarily, cancer is nothing more than a great family of cells with a common origin from preformed epithelium, it is not possible for a parasite to be the chief etiological factor, in an infectious granuloma, for instance, where there is never any tissue connection between primary and secondary foci and growths—they are purely local manifestations or developments. He does not consider it impossible for an intracellular parasite to play a part, but it cannot possibly in itself be the decisive factor, it cannot determine the variety and character of the new growth—since the cells themselves and only they do this. Experiments on the transmission of tumors from one individual to another deal only with transplantation of tissue and the production of a secondary growth. As long as a primary tumor cannot be produced by means of an organism in pure culture, the parasitic nature of cancer is not proved and he concludes that there is no necessity for even assuming such an etiology.

The Etiology of Malignant Growths. By V. HANSEMAN. (*Berl. klin. Wochens.*, 42, Nos. 12 and 13, March 20 and 27, 1905.)

In an exhaustive article the author discusses the various theories which have been promulgated since work has been begun in this department of pathology. Experimentally, he reminds us that in all the reported positive inoculations of cancer from man to animals, not one animal has shown a typical metastasis and died from the effects of the tumor, a condition which, of course, should be fulfilled. Inoculation from animal to animal has succeeded, but, obviously, this is not an infection but a transplantation. Of the existence of cancer houses and cancer à deux, he says it would be remarkable indeed if a disease which occurs so frequently should show a proportionate distribution. Investigations indicate that cancer does occur in the tropics and among uncivilized peoples; also in the country as well as in cities, and if reports are scanty, it is because of inability or negligence in securing medical aid. The infectiousness of

malignant growths has been compared with tuberculosis. In the latter, the bacillus, wherever it lodges, produces a uniform anatomical product formed from the preëxisting tissue. In cancer metastases, the anatomical product itself is carried from place to place and grows. Neither would the drawing of analogies from Coccidiosis in squirrels and Bilharzia disease justify the classing of cancer as an infectious disease. While not a direct opponent to this theory, Hansemann thinks proof is lacking, but he is ready to accept a parasite whenever the future produces one. One must be cautious in estimating the value of inheritance, as errors are frequent and conditions misapprehended by the laity whose information alone is so often depended upon. Throughout the realm of pathology there is a reciprocal action between irritation and irritability, and as human tissue is so variable, one can readily conceive that there are people so susceptible that an otherwise slight irritation will in them call forth a growth, as for instance, in cases of xeroderma pigmentosum, tar and paraffin workers, old inflammatory foci, etc. Of course the irritation depends, not only on the quantity but on the quality as well, and the disposition need not necessarily be inherited, but it can under proper conditions be developed. Concluding, the author adds that it is not proper to speak of only one etiological factor; if the cause can ever be known, perhaps for each single group there will be a different cause.

BACTERIOLOGY AND PARASITOLOGY.

By A. D. MEWBORN, M.D.

Further Remarks on the Mode of Infection in Uncinariasis. CLAUDE A. SMITH, M.D. (*Jour. A. M. A.*, 1905, p. 1143.)

In a former paper which was abstracted in this JOURNAL, (Jan. 1905, p. 37), Smith showed experimentally that the four-days-old larvæ of *Uncinaria Americana*, when mixed with soil and applied to the skin, produced a local dermatitis, the so-called "ground itch," and that after the seventh week the patient began to pass eggs of the parasite in the stools. In the present paper he describes experiments along similar lines. To eliminate any organism in the soil used for the experiment, he baked the soil for an hour, then to this soil after cooling was added feces containing uncinaria eggs; enough water being used to make a slightly damp mass. This mixture was then placed in Petri dishes and kept at room temperature. At the end of twenty-four hours an examination of the soil showed that the eggs had all hatched out, as no eggs could be found; but there was an abundance of young larvæ. In order to determine the age at which the larvæ would penetrate the skin, it was decided to place the larvæ on the skin every day from the time they were twenty-four hours old until some result was obtained. Accordingly, when these larvæ were twenty-four hours old, some of the soil was placed on the wrist of a

patient, wrapped with a plain gauze bandage, and allowed to remain for an hour. At the end of this time no effect was noticeable. This was repeated on the second, third, fourth, and fifth days. The patient failed to show up on the sixth and seventh days. On the eighth day of larval development the soil was again placed on the wrist, and within five minutes the patient complained of a sharp, stinging sensation in the area covered by the soil, which increased and persisted during the time the soil was allowed to remain on the wrist. Upon removing the soil, the entire area was found to be decidedly reddened. A gauze bandage was applied and patient ordered to report the next day. Patient reported that itching had gradually subsided, to return with great severity during the night, so much so, that he had been unable to sleep. Examination showed increased redness, slight elevation of area, and swelling of the entire dorsum of wrist. The third day after the successful inoculation the patient reported sleepless night, and excruciating itching. Upon removal of the bandage the back of the hand, wrist, and arm was found reddened, greatly swollen, and vesicles covering the entire area. There was no tenderness on pressure, however. The fourth day showed the height of reaction, swelling extended from first phalanges of fingers to midway of forearm. Confluent large blebs, increased redness, but no axillary involvement. On the fifth and sixth days after inoculation the swelling began to subside, the veins and tendons which had been previously obscured, showed well through the skin, the area crusted over, and the patient felt all right again. On the ninth day the local affection had practically recovered.

From the beginning of this experiment the stools of the patient were carefully washed, centrifugated and examined microscopically, but no eggs were found until the middle of the sixth week and then only few in number. After this they increased steadily, and eight weeks after the appearance of eggs in the feces of the patient, he was given the usual treatment to remove the parasite, *i.e.*, two doses of thymol, of thirty grains each, preceded and followed by large doses of salts. All the stools were saved for twenty-four hours following the treatment, and these were carefully washed and examined. As a result, 596 adult male uncinaria and 752 female uncinaria were found, making a total of 1,348. The patient has been given treatment at two different times since, but at the present time still has a slight infection. Smith claims that he excluded all opportunity for infection by the mouth or other sources than at the point inoculated, and that this experiment answers the objections of Pieri to the results obtained in a similar manner by Looss, because Looss could not be sure that infection had not taken place through the mouth on account of his having handled the larvæ so much. While it is plain that the disease is contracted through the skin, Smith says that one cannot be sure that this is the only way, nevertheless it appears to be the mode of infection in the majority of cases. In the discussion of this paper, read at the Portland meeting of the American Medical Association, Dr. R. C. Cabot, of

Boston, said that two great medical achievements have resulted from the war with Spain. We have freed Cuba of yellow fever, and we are now freeing Porto Rico from uncinariasis. To Captain B. K. Ashford, U. S. A., and Lieutenant W. W. King, U. S. P. H. and M. H. S., we owe much of what has been done. At present they are engaged in a regular field campaign against the disease. With field hospitals, etc., they move from town to town, treating the severe anæmias in bed, the others take their medicine and go home.

A Plea for the more General Use of Tuberculin by the Profession. SIR T. M'CALL ANDERSON, M.D. (*Brit. Jour. Dermat.*, 1905, p. 317.)

In his oration delivered at the annual meeting of the Dermatological Society of Great Britain and Ireland, May 24, 1905, the author claimed that while the X-ray and the Finsen light treatment have yielded admirable results, and constitute a valuable addition to our therapeutic measures, there are cases, and he gives detailed histories of a number, in which from their situation or from their extent, these agents are unsuitable. Five years ago the author read a paper at the Medical Graduates College and Polyclinic showing the value of tuberculin, and further experience has only served to confirm the opinion then held as to its valuable properties. He refers to the Harveian lecture of Malcolm Morris on "Some New Therapeutic Methods in Dermatology," and heartily agrees with the general principle of treatment expressed in the single word *reaction*. His experience does not coincide with the remarks of Malcolm Morris in reference to the use of tuberculin, however. Morris says, "Any one who has seen the violent reaction caused by Koch's tuberculin in its original form . . . on patches of lupus vulgaris must have been struck by the change which came over the scene of disease when calm was restored. It looked as though at last Huxley's therapeutic ideal had been realized, and it had 'become possible to introduce into the economy a molecular mechanism which, like a very cunningly contrived torpedo, shall find its way to some particular group of living elements, and cause an explosion among them, leaving the rest untouched.' The hopes thus raised were doomed to speedy disappointment, for it soon proved that the 'torpedo' caused explosions not only in the places where cutaneous disease actually existed, but in hidden and—it might be—unsuspected points in vital organs like the lungs. Theoretically, it was admirable, but it was not war in the therapeutic sense. The impossibility of limiting the reactive energy of tuberculin to the skin prevents, in many cases, the utilization of the specific properties in the treatment of lupus vulgaris." To the author this is one of its unique advantages. For we are thus enabled to attack and, in an early stage, to destroy unsuspected foci of disease in internal parts, before they have become a source of danger, and to prevent a reinfection of the skin at a future time. Two factors must not be forgotten in dealing with tubercular disease: first, the tubercle bacillus and its toxins, and second, the soil favorable to its germination and development. So that, in order

to obtain permanent results, good and abundant nourishment, living in the open air, tonics, etc., must supplement the destruction of the micro-organism. The first case was one of tubercular peritonitis in a boy of eight years. A test injection of $\frac{1}{4}$ c.c. of 1 in 1000 O.T. sent the temperature up to 104.4° . The second injection of $\frac{3}{4}$ c.c. resulted in a temperature of 103.2° . The diagnosis being thus established, the treatment was kept up, increasing the dose to 1.5 c.c. of 1 in 10 with no reaction. After twenty-two injections the patient had gained seven pounds and was dismissed in perfect health. The second case was tubercular glands of the neck (suspected Hodgkin's disease) with marked temperature reaction with recovery.

The third case was really hereditary syphilis having cutaneous lesions resembling a tubercular process which failed to give the tubercular reaction. M'Call-Anderson always uses tuberculin in doubtful cases, and considers it of *priceless value*. The fourth case showed a pigmentation of the skin resembling Addison's disease. Owing to the fact that most cases of Addison's disease are the result of tubercular disease of the supra-renal capsules, he made the tuberculin test. After the third injection there was pain in the hypochondriac region. After the fourth injection the temperature reached 103.4° . After one month's treatment the pigmentation almost entirely disappeared. Seven cases of lupus vulgaris are described with illustrations showing the condition before and after treatment, all of which showed cosmetic results of the most satisfactory sort. The author holds that lupus erythematosus is, like lupus vulgaris, a manifestation of the tubercular diathesis, and that some, but not all cases, respond favorably to the tuberculin treatment. He gives two such cases of lupus erythematosus recovering under injections with but little scarring.

In carrying out the treatment the following rules are given.

1. The initial dose of the old tuberculin, in the case of an adult, should not exceed $\frac{1}{2}$ c.c. of 1 in 1000, and sometimes it is safer to begin with $\frac{1}{4}$ c.c.

2. If a given dose yields little or no result, it is usually safer to give a second of the same strength as the last, because the latter often acts more severely than the former.

3. The more pronounced the constitutional reaction, the longer should the interval be before the following injection, an interval of several days of apyretic temperature at all events.

4. Much greater care must be exercised in increasing the doses at the earlier than at the later periods of the treatment, because the system gradually gets acclimatized to it, so much so, indeed, that while an initial dose of $\frac{1}{2}$ of 1 in 1000 may raise the temperature to 103° or 104° , the final dose—say of 1 c.c. of pure tuberculin—may have no result at all. In the discussion of the oration, Dr. Graham Little said that he had been pursuing a similar line of treatment in conjunction with Professor A. E. Wright, but had been using the new tuberculin which gave no bad reaction at all.

BOOK REVIEWS.

Exploration des Fonctions Rénales.—(*Etude Medico-Chirurgicale*). Par J. ALBARRAN, Professor Agrégé à la Faculté de Médecine de Paris, Chirurgien des Hopitaux. Avec Figures et Graphiques en Couleurs, Paris. Masson et Cie, Editeurs. 1905.

The researches of auto-intoxications and of the toxicity of the humors of the body, made by Bouchard and his pupils, as Albarran points out, have been the common source of all work directed within the last years towards the study of the pathological physiology of the renal affections. New methods of exploration have been added; cryoscopy, originated by Raoult and developed by Koranyi, Claude and Balthazard; the method of provoked eliminations which have obtained a prominent and undisputed place in pathology by the work of Lepine and Vincent on iodide of potassium, by the researches of Achard and de Castaigne on methylene blue, by Achard and Delamare on phloridzin glycosuria, by Claude and Mauté on provoked chloruria. In the meantime investigations made in Germany by Nitze and Casper and in France by Albarran himself, have introduced into practice the separation of the urine of the two kidneys, and by many new technical processes, the pathological physiology of the surgical affections of the kidneys could be investigated and the diagnostic brought to a precision heretofore unknown. Persistent efforts of Casper and Richter in Germany and of Albarran in France, have demonstrated the practical value of the comparative study of the urine from the two kidneys. But the separation of the urine by ureter catheterization or other methods, does not solve all the practical problems, but rather opens new ones by allowing a more exact analysis of the renal secretions. In order to understand the results, which so far have been obtained by exploration of the renal functions and to find your way in new investigations, it is indispensable to be well acquainted with modern work. To collect and expose for the benefit of the profession all this work done by himself and by others, is the task Albarran has set himself in writing this book. It is divided into two parts, the first, more medical in character, treats of the exploration of the functions of both kidneys combined; the second, more surgical part, studies the secretion of each kidney separately. However, the relations between the two parts are so close, that they form a solid entity, and one cannot profitably read the one without the other.

In an introductory chapter, the functions of the kidneys are considered in general. Of their internal secretion so little positive knowledge exists, that only the external secretion becomes a subject for consideration. The first chapter treats of the functional value of the kidney as an organ of filtration. It has to be determined by the examination and comparison with the blood and by chemical analysis; the principal substances, urea, chloride of sodium, the phosphates and uric acid, then the quantity (polyuria, etc.), the specific gravity are considered. Cryoscopy, its technique and theories are particularly exposed, then Bouchard's investigations of the toxicity of the urine and the different methods of studying the provoked elimination, the tests with fuchsin, methylene blue, rosanilin, iodide of potassium, the experimental and spontaneous alimentary chloruria, and the simultaneous examination of blood and urine conclude the first chapter.

The second chapter, the functional value of the kidney as a secretory gland, treats of the formation of hippuric acid and principally of the phloridzin test. On pages 183 to 219, the value of the exploration of the renal functions for clinical medicine and surgery in general is considered, the actual value and the

limitations of the various methods, particularly of cryoscopy and the methylene blue test are minutely and critically defined with particular reference to pyelonephritis and other conditions. The concluding chapter of the first part deals with the question, which process in the mode of examining the renal functions promises to furnish the greatest information in regard to the anatomical conditions of the kidney.

The second, more voluminous part of the book, treats of the determination of the functional value of each kidney separately. After a brief historical review the author describes the various technical proceedings to obtain separately the urine of each kidney; compression of one ureter (Tuchmann, a. o.), the separation of the two ureters by the formation of a dividing membrane in the bladder either from outside (Harris) or by unfolding a diaphragm within the bladder (Luys' separator, Cathelins' "diviseur gradué" and others), and finally ureteral catheterization either without endoscope or cystoscope (Pawlick), or by the endoscope with reflected light (H. Kelly), or by means of the cystoscope under direct illumination (Brenner, Nitze, T. Brown, Freudenberg and Albarran). The minute description of the various instruments of the technique of ureter catheterization, of its dangers, difficulties, possibilities and fallacies, is followed by a critical review of the various methods, deciding in general in favor of catheterization. The importance of the study of the functions of one kidney alone and of the comparison of the functions of the two kidneys is then demonstrated, and the different methods of exploration, which have been described and studied in the first part of the book in reference to the examination of the common urine of both kidneys, are gone over again in regard to their application to each kidney separately, particularly the methylene-blue test under various conditions (pyelonephritis, movable kidney, retention of urine, tuberculosis and new growths of the kidney, also chromocystoscopy and phloridzin glycosuria.)

The last chapter treats of the observation of the course of urinary eliminations and the working capacity of each kidney by means of experimental polyuria. The physiological laws, on which this proceeding is based, and its technique are defined, also its application under normal conditions and under pathological ones, be it that one kidney had been destroyed and the other remained healthy, or that both kidneys were active and one only diseased, or that both kidneys were diseased. Numerous colored charts accompany this chapter, to elucidate the clinical value of experimental polyuria. Finally one table exhibits the comparative examination of the urine of the two kidneys obtained by ureter catheterization in 129 cases, and a second table the relations between the healthy and the diseased kidney in the same cases.

The author has conscientiously and admirably fulfilled the task he had set to himself and certainly deserves the gratitude of the medical profession for collecting all the important facts and theories which have been widely scattered among numerous publications. Furnishing an excellent review of the present status of our knowledge of the functions of the kidney, particularly with reference to ureter catheterization, the book will greatly help those who wish to study this question or to continue its investigation. It must be, however, of interest to all physicians and not the least to dermatologists who are in the habit of looking upon the secretions of the kidneys as the principal exponent of faulty metabolism supposed to be the cause of many skin diseases.

H. G. K.

The Surgical Diseases of the Genito-Urinary Tract, Venereal and Sexual Diseases. A Textbook for Students and Practitioners, by G. FRANK LYNSTON, M.D., Professor of the Surgical Diseases of the Genito-Urinary Organs and Syphilology in the Medical Department of the State University of Illinois, Surgeon in Chief to the Genito-Urinary Department of the West Side Dispensary, etc. Revised edition, illustrated with 233

engravings and seven colored plates. *Phila. F. A. Davis and Co., Publishers, Oct. 1904.*

For the benefit of those of our readers who may not be familiar with the first edition of Dr. Lydston's excellent treatise, a synopsis, showing the scope of the work and the general plan of its arrangement may be given as follows: *Part I*, treats of the General Principles of Genito-Urinary, Sexual and Venereal Pathology and Therapeutics. *Part II*, is devoted to non-venereal Diseases of the Penis. *Part III*, Diseases of the Urethra and Gonorrhoea. *Part IV*, Chancre, Bubo and their Complications. *Part V*, Syphilis. *Part VI*, Diseases affecting Sexual Physiology. *Part VII*, Diseases of the Prostate and Seminal Vesicles. *Part VIII*, Diseases of the Urinary Bladder. *Part IX*, Surgical Affections of the Kidney and Ureter. *Part X*, Diseases of the Testis and Spermatocord. It will be seen that the work embraces a wide range of subjects, the author's endeavor being to give a practical survey of the entire field of Genito-Urinary and Venereal Diseases. While the work embodies certain views peculiar to the author and which may be subject to criticism, the manner of treatment of the different subjects corresponds in the main with the generally accepted and standard teachings. The second edition shows evidence of careful though not exhaustive revision. The important changes relate more particularly to the therapeutics of gonorrhoea and the introduction of a large number of illustrations which are designed to add to the teaching value of the work. The value of the organic silver salts in the treatment of the early and subacute stages of specific urethritis receive a much more favorable recognition than in the previous edition. Of the newer silver salts the author regards argyrol as incontrovertibly the best and most efficacious. Some criticism might be passed upon the artistic excellence of the colored plates but the illustrations as a whole are excellent and naturally enhance the teaching value of the book.

Einführung in das Mikroskopische Studium der Normalen und Kranken Haut. Ein Leitfaden für Ärzte und Studierende. Prof. Dr. S. EHRLMANN and Dr. JOH. FICK.

This work is based on a course given by Prof. Ehrmann, with the assistance of Dr. Fick, in the microscopic examination of the skin. As the title indicates, it is merely an introduction into this field. But the subjects are treated in an admirable and comprehensive manner. There are about 100 pages with 21 cuts and one colored plate. Microscopic technique occupies the first third and covers the fixing and embedding methods, formulæ and directions for the use of the more general with some special stains for the various elements of the skin and for its bacteria. A pleasing feature is the conciseness and clearness with which this section is presented, the authors not having lost sight of the fact that their book was primarily designed for students. The laboratory novice should appreciate the suggestions with the explanations of possible failures, thus obviating many disappointing results.

The remainder of the text is devoted to the cutaneous structures. From its nature, it must of necessity be mainly histological with mention only in a general way of deviations from the normal; so the writers take up the epidermis first and then describe briefly the more common pathological processes. The cutis with its component parts follows and pigment and the cellular elements receive their quota of pages. Next in order come the musculature, vascular system, the nerves and finally the appendages.

On the whole, this little volume is most commendable. It will serve as an excellent guide for the beginner and the experienced worker will be glad to give it a place on his table. The authors promise to supplement the work with an abridged special histopathology of the skin, which will be awaited with interest.

E. C. J.

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EDITORIAL

EVOLUTION OF THE INITIAL SYPHILITIC LESION OR LESIONS IN SUCCESSIVE CROPS (*Chancres Syphilitiques Successifs*).

IT is well known that while in the majority of cases of syphilitic infection, the initial lesion is unique and seated on the genitals, in many it is multiple and in some rather rare instances the infecting lesions are situated on two or more regions of the body; the usual combinations in the male being the penis and the lips, eyes, chin, head, forehead, neck and arms, thighs, legs, buttocks, hand, ear and hypogastrium, and in women chiefly the genitals and the pubes or thighs, the breasts and nipples and some portions of the head, usually the lips. In the foregoing cases the evolution of the multiple lesions is usually synchronous, the recipient syphilitic being in some manner, usually unknown, infected at the same time on the various parts of the body. In a somewhat rarer order of cases, there is no genital lesion, and the infection begins extragenitally, usually about the lips, breasts, or head. As curiosities of extragenital syphilitic infection it is interesting to note that Pringle reports a case in which there were severe extragenital chancres (lip, forehead, thigh, leg, buttock and nostril), and that Petrini reports one in which six primary lesions were found on the face. Danlos reports an interesting case in which a man had coitus with the penis and with the mouth which resulted in the development of seven chancres: five on the penis, one on the tongue and one on the lower lip. These chancres appeared in two crops, one of which was observed twelve days after the evolution of the first.

Cases of multiple syphilitic chancres of the breast and nipples

have been not infrequently reported and their mention is common in textbooks on syphilis.¹

Of late, much attention has been paid to the rather anomalous development of syphilitic primary lesions, genital and extragenital, in distinct crops, and the description of these successive lesions is worthy of careful study. In a very exhaustive brochure entitled *Chancres Syphilitiques Successifs*, which we have been in the habit erroneously of calling *Chancres à Distance*, Sabareanu under the auspices of Fournier and Gaucher, has thoroughly developed this subject and his essay is worthy of close attention.

It is well known that the existence of successive syphilitic chancres has been denied by several authors, and it has been claimed that in the various cases reported, there has been synchronous evolution of the lesions, but that mistakes have occurred from lack of care and acumen in observation. In answer to this claim Sabareanu shows conclusively that as the result of experimental inoculation made mostly in the days when syphilization was practiced, and in recent times the secretion of the hard chancre upon a man or woman, the victim of syphilitic infection, produced at varying intervals following the inoculations true hard chancres. This was shown by Belhomme and Gibert, Wm. Boeck, Lindwurm, Waller, Puche and Wallace. I may add that in my own service, many years ago, the late Prof. Wm. Boeck produced many chancres in patients of mine during the secondary periods of incubation of syphilis. As Bumstead and I were then working up the subject of syphilization at Boeck's instigation, we, using alike the secretion of hard and soft chancres, observed the development of these lesions in many cases of young syphilis, especially in the second period of incubation before the evolution of secondary manifestations. The incubation period of these new inoculated chancres was very variable, even erratic, and in a given inocu-

¹ Queyrat observed in 500 recent cases of syphilitic chancres that in 131 cases the lesions were multiple, being a proportion of more than twenty-five per cent. Of these 131 chancres there were 2 lesions in 79 cases; 3 in 27; 4 in 6; 5 in 12; 6 in 2; 7 in 3; 12 in 1, and 13 lesions in one.

In addition to the foregoing statistics, the following, vouched for by Guillard, Lafosse and Papegaey, gathered in the Ricord Hospital, are of much interest. P. Humbert observed 2601 cases of unique syphilitic chancres and 990 multiple lesions,—in all 3591—being a proportion of 27.58 per cent. of the multiple form. Mauriac's statistics are 4052 of the unique lesions, 1197 of the multiple;—in all 5239, being 22.84 per cent. Renault reports 1117 unique cases and 417 multiple ones: in all 1534, being 27.18 per cent.

The truth of the matter is this: that in about 25 per cent. of all cases of syphilitic infection the initial lesion is multiple.

lation we could never predict an early or delayed successive chancre. It is to be presumed that this same erratic course obtains in successive chancres observed in clinical practice. Very recently (1905) Queyrat has inoculated three syphilitics with the secretions of their own chancres, dating in duration from four to twenty-eight days, in thirteen séances. Of these thirteen attempts, he obtained three positive results, and he produced lesions which he regarded as aborted attenuated syphilitic chancres of which he says, "*Ils se trouvent évoluer sur un terrain en voie d'immunization syphilitique.*" Of these three successful cases, the first and second, were obtained from a chancre five days old and the third from one six days old. The incubation after the auto inoculations were twelve days in two cases, and twenty one days in the third case. It was reported to us that by this treatment the severity of secondary syphilis could be much ameliorated. The fact remains, however, that successive hard chancres in papular and erosive forms were continually seen by us. It is well to add that we incontinently failed in ameliorating, aborting or curing syphilis by syphilization.

Sabareanu and some recent French syphilographers stand on good ground when they claim that successive chancres are true morbid entities. The limits of this review preclude the theoretical considerations involved in the appearance of successive chancres and the hypotheses propounded as to the date at which syphilis becomes constitutional. Sabareanu very justly remarks that the appearance of a lesion, or lesions, five to ten days after the first does not establish the fact that the infection occurred at these intervals, and that in some cases the permeation of the virus may have been slower in some parts. In most cases the successive chancres are due to repeated coitus,—coitus with another syphilitic consort, manual manipulation, to bandage and to the underclothes.

It is well to remember that in some cases a successive lesion or lesions are due to actual contact, as for instance in the case of chancre of the lip, the other lip or the tongue may later be the seat of chancre. As also may be observed a chancre of the penis, when the scrotum, thighs or hypogastrium may become the seat of a chancre. In women genital chancres may give rise to later on developed lesions of the opposite side of the genitals or to the thighs. In these cases the syphilitic secretion which escapes and bathes the nearby parts acts as an irritant and develops new chancres. In secondary syphilis also, chiefly by the secretion of oozing papules, condylomata and pustules, new secondary lesions are not infrequently

developed, which are papular, nodular, and erosive and in some instances resemble mixed chancres.

In general it may be concluded that these recurring lesions are due to simultaneous or successive infections, and the virus, as we have said before, may be derived from the patient (auto-infections) or from that of another syphilitic (hetero-infection.) In my private practice within a period of about one year, I have encountered four cases of recurrent or successive chancres. These are briefly as follows:

CASE 1. A man, aged forty-eight, had two hard chancres on the penis and glans with an incubation of twenty-two days. These were followed in seventeen days by an enormous chancre under the umbilicus, which was of oval shape, two inches long and one and a half wide. Great adenopathy.

CAS 2. A man, aged thirty-nine years, had three chancres of prepuce and sulcus coronarius with an incubation of eighteen days which was followed in twelve days with typical lesions on the upper lip and the lobe of the right ear.

CASE 3. A man had typical chancre of the upper lip with an incubation of thirteen days, which was followed in nine days with similar lesions of the right ala nasi and penis. The ganglionic reaction about the neck was well marked before the appearance of the genital chancre, which was soon accompanied by elephantine enlargement of the inguinal glands.

CASE 4. A man, after an incubation of twenty-one days, had a typical indurated chancre of the glans which enlarged and sclerosed the whole distal part of the organ. In eighteen days two chancres, one on the right forefinger and the other on left thigh, both typically indurated, were observed.

In my cases the development of the recurring lesions was fully as marked as was that of the classical initial chancre. Queyrat reports the following interesting case: A man, twenty-two years old, had daily intercourse with his mistress (and with her alone), until June 23, 1904, when he discovered a hard chancre in the sulcus coronarius on the right side. He then left the woman and had no further intercourse. On the first of July a second chancre appeared on the cutaneous sheath of the penis. On the fifth of July a third chancre appeared near the pubes, and from that time with intervals of one or two days, chancres appeared on the penis, until a total of eleven chancres were observed, which Queyrat styled *Chancres syphilitiques avortés*.

Bellezza reports the very recent case (July, 1905), of a man, twenty-one years old, who had repeated coitus with the same woman during January and part of February. On the twelfth of the latter month, a chancre appeared in the coronal sulcus and six days later a lesion which resembled an acne pustule developed on the left cheek which in the following days, as a result of scratching, assumed the appearance of an infecting chancre.

The date of evolution of the successive chancres may be 5, 10, 15, 20, 30 and in one case it was said to be forty-two days after the first chancres. It is very rare indeed to observe the development of a successive chancre later than ten days before the appearance of secondary manifestations. The bibliography of this subject is very rich, but the cases Cenas, Coppez, Gaucher, Lacapere, Haslund, Hott, Papegaey, Quentin, Roux and Metchnikoff may be consulted with especial profit.

ROBERT W. TAYLOR, M.D.

ALOPECIA AREATA, AS ASSOCIATED WITH NAIL-CHANGES

By GROVER WILLIAM WENDE, M.D., Buffalo, N. Y.

THE subject of this paper, whose condition is depicted in the accompanying photograph, was under the care of my associate, Dr. Spangenthal, of the University Dispensary, to whose courtesy I am indebted for the privilege of making this report. She was nine years of age and was born in Buffalo, of Polish parentage, having two sisters and one brother. Two of the family died from some infantile disease—nothing in the domestic history to show that other members have been subjected to a like condition. One member of the family had a well-developed plica, an interesting fact, although having no bearing upon the present case.

The patient is a blonde, well nourished, no history of any infantile or any evidence of provocative disease, particularly syphilis. The present trouble dates back to the time when the child was three years old; up to that period she had a luxuriant growth of hair and an apparently healthy scalp. For about one week previous to the appearance of the affection, she complained of severe headaches. When the headaches ceased, the hair began to fall. At first there was

only a single bald spot, which appeared suddenly; afterwards a dozen or more similar spots developed. These finally coalesced, so that the head was entirely denuded. This process consumed about six months. Early in the history of the disease, changes in the finger-nails were noted, which have since continued; the nails, at first, being lighter in color, friable and breaking off easily. The mother states that at one time they were greatly thickened but subsequently became thinner. Thus far the nails have shown no tendency to clear up, nor has the hair, save as relates to a single tuft over the right ear. This particular tuft gave marked evidence of atrophy, the eyelashes and eyebrows which fell off six months after the disease began, have not reappeared. There was proof of atrophic changes, but only a little mobility, as the underlying surface was very thin.

The nails of all the fingers asserted atrophic changes, the surface presenting a variegated appearance, more marked at the free edge, which was brittle, cracked and stained almost to blackness. The nail-grooves were exaggerated and were uniformly thinner than normal. In a number of them the lunulæ were absent, but the nail was firmly implanted. In others, the sides and, to a less extent, the free margin, were elevated, making a central spoon-like depression. The toe nails were affected as well, but presented a somewhat different appearance. Instead of being atrophic, they were greatly thickened, and about one-half the usual length; the free edges were uneven and showed a dirty deposit. The remaining portions were covered with longitudinal clefts.

Microscopical examinations of the hair and scalp, made after the methods suggested by Waelsch and Sabouraud, proved negative.

It is to be noted that the inceptive symptoms pertaining to the scalp were suggestive of alopecia areata. The development became more rapid as the affection progressed. Careful investigation into the actual cause of the condition resulted in nothing satisfactory. It was ascertained that the child had not received any nervous shock, from lightning or otherwise, which has been known to produce a combination of hair and nail changes. The ultimate appearances in such a case would resemble those in this, although the etiological factors in alopecia areata suppose something quite different.

For the purpose of comparison with the case now recorded, I add brief reports of others which closely resemble it. L. Levan (*Monatsh. f. prakt. Dermat.*, 1902, XXXV, p. 149)—“Alopecia Areata Totalis (maligna) with Atrophy of Nails.” The patient



was a young man; no evidence of nervous condition. Disease began on the beard, one and a half years previous, and later on the scalp, proceeding rapidly and resulting in complete baldness. At the same time, changes in the nails of the hands and feet were noted. They, at first, turned yellow, longitudinal clefts appeared in the nail-substance and, finally, cleaved off, except as relates to a very small portion at the root. There was not a complete destruction of the substance of the nails. While they were changed in appearance, there were marked variations in nail-growth, the condition of the hair remained the same.

C. Audry (*Journal des Maladies Cutanees et Syphilitiques*, March, 1900, p. 161) reports two cases involving alopecia areata in which the nails showed atrophic changes. One case was that of a nervous woman whose nails became affected some months after having suffered from alopecia. The second case was that of a young man who had a typical patch of alopecia areata, whose nails were subsequently changed. The nails in both cases presented a rough and dirty appearance, due to minute pits in the nail-substance. They were deeply grooved, but not thickened. In those most severely affected, the grooves were more numerous and deeper, the free edge was brittle and the nail-bed exposed. In some instances the nail-bed had disappeared and was replaced by hyperkeratosis, but without producing a properly shaped nail. Microscopical examination failed to find any fungus. The author believes that the same cause which produced the falling-off of the hair was responsible for the changes in the nails.

Dr. G. H. Fox presented a case of alopecia areata with atrophic unguis, before the New York Dermatological Society, reported in *THE JOURNAL OF CUTANEOUS AND GENITO URINARY DISEASES*, December, 1902. Vol. XX. The patient was twelve years old, and had a good growth of hair at birth, which fell out early, leaving the scalp completely bald until the seventh year. Since then, the hairs have come in and fallen out again. The history shows chronic trouble with the nails. The patient presented the usual appearance of alopecia areata, the hairs being absent in places and actively growing in others. "The nails of all the fingers were thin, brittle, longitudinally striated, and exfoliating in plaques, especially at the anterior parts. The lunulae of all the nails seemed affected. There were no signs of inflammation."

In the discussion following this case, Drs. Jackson and Dade stated that when alopecia areata and nail-changes are as here shown,

the facts constitute a strong argument in favor of the neurotic theory.

Case presented at the Dermatological Society of Great Britain and Ireland by Pernet, for Mr. Abraham, reported in the *British Journal of Dermatology*, 1900, p. 100.

A case of leukonychia, associated with alopecia areata. Age twenty-eight; subject to worry previous to the falling-off of the hair. Duration about one year. The nails presented an appearance resembling porcelain—the color of the normal lunula—and revealed small pits. Some of the toe nails were flecked with white areas. Mr. Pernet was not positive whether the condition was due to imperfect circulation or to nail-changes. The patient suffered from anæmia. During the discussion of the case, Dr. Wilfrid Warde spoke of another which had been reported in the *Annales de Dermatologie*, November, 1898, by Darier and LeSourd. The interesting fact of this particular case was that the patient had total alopecia, beginning at the age of nineteen, showing gradual improvement and relapsing after five years, at which time the nails became affected. Another interesting feature of the discussion was made by Sabouraud, to the effect that the case was a band-form, and not of the seborrhœic variety. He had also made similar observations in six cases, found among many others. M. Brocq's observations were limited to one case of alopecia, with white nails.

During the discussion of the etiology and clinical forms of alopecia areata at the International Congress of Dermatology, at Paris, in 1900, *Archiv für Dermatologie u. Syphilis*. Bd. 55, p. 113, Sabouraud mentioned a typical form, whose ravages were quite extensive. In cases of the thickening of the nails, he supposed the change to be due to infiltration of air. Among the causes suggested were nervous disturbances of nutrition, which appear to play a rôle in the etiology.

Conclusions—I do not think there can be much hesitation in admitting that, in the case here reported, the incentive to alopecia had something to do with the atrophy of the nails, and the cases noted by Leven, Audry and Fox are alike in process. The hair-changes in these several cases correspond to alopecia areata: all the patients were young, and each case showed marked atrophic changes. The most striking features in these five cases were that the nail-changes were practically identical: that the nails in each case were thin, with the splitting of the free borders; that they were lusterless, with a worm-eaten appearance, and changing in some instances, with

the hair, and that no inflammatory evidence was forthcoming: in all of the cases there were symptoms characteristic of atrophía unguis.

The cases of Sabouraud and Brocq do not correspond, but, instead, we have a modified cornification, produced by the infiltration of air. Trifling nail-changes probably accompany alopecia areata, which resemble those described; but the fact remains that very few analogous cases have been recorded, which may be considered as having an important bearing upon the etiology of alopecia areata. Yet, in a group of cases like the ones here reported, we have a concurrence of evidence that, at least, these cases are atrophic, neurotic affections, associated with an atrophied condition of the nails, making it reasonable to suppose that the exact condition must be due to some disturbances in functional nerve supply, and that the nails and hair are more vulnerable, consequently more susceptible. And if we take into consideration the well-recognized symptoms previously recorded, such as temporary loss of sensibility, the reluctance of the affected parts to respond to irritants, the atrophic changes of the hair follicles and the following of the nerve track—the neurotic theory seems reasonable. The association of alopecia areata with leukoderma is also a fact of importance, when the cause of the combined conditions is considered. In this connection, it is interesting to observe the extreme rarity of nail-changes in well-marked cases of alopecia areata. We might reasonably expect to find the two conditions more frequently associated. The attractive microbacillus theory of Sabouraud may be questioned, considering the contradictory evidence accumulating in cases of this character.

A NOTE ON THE TREATMENT OF ICHTHYOSIS

By GEORGE T. JACKSON, M.D., New York.

UP to the present time it is hardly possible for us to speak of a cure for ichthyosis. All we have been able to do is to ameliorate the condition by the use of emollients. In all my reading I recall but one case reported as cured. It was in the *Monatshefte f. prakt. Dermat.*, 1884, iii, p. 365, by Mr. Bockhart. He used daily baths with soap and water, followed by inunctions of sulphur ointment. The latter was used also at noon and night. Cod liver oil was given internally, and twice a year for six weeks, salt and water baths were substituted for the soap and water baths. After three years of continuous treatment, there was a suspension of treatment with no return of the disease for three months. After nine years treatment, with pauses, all treatment was stopped, and the patient remained well up to the time of the report, six years. When once I proposed to the mother of one of my ichthyotic patients that she might try this plan, she declined with thanks, as she thought the cure was worse than the disease.

In February, 1904, my friend Dr. Douglas H. Stewart, of New York, asked me to examine a patient of his, upon whom he was about to try a new method of treatment, so as to have a confirmation of his diagnosis. It is at the request of Dr. Stewart that I now make a report upon the case and its treatment. I regret that he would not make the report, and have complied with his request, because the results of the treatment were so very remarkable.

1. THE CASE.

P. R.: male; single; United States; age twenty-six; lawyer. Family history: his maternal grandfather, his mother, one brother, and one sister, have ichthyosis. He has two sisters who are free of the disease.

February 27, 1904, Mr. R. was examined by me. He is a tall, well built, healthy looking man. His general health is good. He suffers from cold even when the weather is not very cold.

He has many large and small pigmented moles on his body and limbs, and many freckles on his face.

His face is very scaly, and this is very marked after shaving. His hands are red, dry, eczematous, showing cracks over his joints. The extensor surfaces of his limbs are dry, scaly, rough to the feel, and somewhat reddened. He has a well marked keratosis pilaris.

2. DR. STEWART'S THEORY OF CAUSATION.

After a careful consideration and study of the case, Dr. Stewart thought that both the hyperpigmentation of the moles, etc., and the hyperkeratosis were due to some defect in the functioning of the intestinal tract and the liver. He found choletelin constantly in the scales. His reasoning was as follows: The spleen frees hemoglobin from the blood corpuscles. This is converted into bilirubin by the hepatic cells, is reabsorbed from the intestines, and is the great supply of such coloring matters to the blood, which modifies it and deposits it in the skin. Whenever there is any disturbance of the hemato-hepatic-biliary-intestinal circles there is also a disturbance of nutrition, shown by loss of hair, atrophies, etc., when there is too little bile. It is therefore reasonable to think that when there is too much bile there will be excessive or perverted nutrition. As ichthyosis is an excessive formation of epidermis, and lentigo an excessive deposit of pigment, it may be that they are both due to too much bile.

3. THE TREATMENT.

Assuming that the above theory is correct, any treatment that will help the system to get rid of the excess of bile, will tend to reduce the deposit of pigment, and the formation of scales in ichthyosis. Irrigation of the colon suggested itself as the best way of accomplishing this, as it hurries the bile laden chyme out of the small intestine, stirs up the liver to secrete more bile, and stimulates the excretory functions of the kidneys and skin. Calomel also aids in the throwing off of bile.

On February 28, 1904, an irrigation of five gallons of water at a temperature of 120° F., containing a teaspoonful of carbonate of soda, and four teaspoonfuls of table salt to the gallon was given. On the next night a pill of calomel and hyoscyanus was administered. For the following four weeks irrigations and pills were given on alternate nights. There was no definite amount used for irrigation. Sometimes more than five gallons were used. They were continued until the water came away clear. It required about four hours to make one irrigation.

March 5. Patient's face was improved, and his hands were less eczematous.

March 9. The hands were no longer cracked, so that the patient could go without gloves.

March 16. The skin was less scaly, and the pigmented spots were fading.

March 26. The conditions were so much improved that from now on only one irrigation was given each week, followed on the next night by a pill. A heaping tablespoonful of sulphate of magnesia was now added to the fluid for the irrigations.

March 30. The patient could now shave without subsequently using vaseline, which he considered a vast improvement, as his face "was always a sight after shaving."

May. Treatment was stopped.

4. THE RESULT.

On October 5, 1905, I examined the patient. His face was smooth, no scaling. His limbs were smooth excepting in one small spot where there was a slight scaling. The skin was a little redder than normal and the hair follicles were prominent, giving the goose-skin appearance often seen in cold weather. The skin of his hands was dry and red, but not eczematous. His face was freckled, and pigmentary moles were present. He was sure that they were not so dark as they once were.

The patient stated that these conditions had been maintained all last winter, which was a severe one. He further stated that his ichthyotic brother was in a worse condition than he had been.

When we consider the exceeding obstinacy of ichthyosis, it seems to me that the results obtained by Dr. Stewart in this case are most remarkable. With no local treatment of any sort, excepting usual bathing, under intestinal irrigations and calomel ingestion, there was a marked improvement in his condition within two months, that has lasted unchanged for seventeen months. Whether many patients will subject themselves to the disagreeableness of the treatment is another question.

SOME NOTES MADE DURING A RECENT VISIT TO CHRISTIANIA AND BERGEN

By JOHN A. FORDYCE, M.D., New York.

AMONG the pleasant recollections of a recent visit to Scandinavia, there is none more lasting than a morning passed with the genial Professor Boeck in the dermatological wards of the Rigs Hospital in Christiania. The kindliness and courteous bearing of all Norwegians to strangers was more than exemplified in the attention shown me at this time. Professor Boeck's keen interest in his favorite subject is as evident now as in his earlier years, and the remark of one of his former assistants, that nothing exists for him but dermatology conveys some idea of his love for this branch of medicine.

An opportunity was given me to see a number of rare cases, a fine collection of water colors made years ago by his predecessor, Dr. Bidentkap, and also numerous microscopic specimens of his sarcoïd and of other affections which he has especially studied. He is a firm believer in the close relationship of lupus erythematosus and the so-called group of tuberculides to extra-cutaneous tuberculosis, and gave many instances from his large clinical experience in support of his views. Our conception of skin tuberculosis should include more lesions than are usually described in the textbooks, and the belief is growing that the manifestations of the disease are more varied than in syphilis. The late investigations of Alexander and Harttung have demonstrated, in some cases at least, that the affection described by Boeck as lupus erythematosus disseminatus and by others under the various designations of acne varioliformis of the body, dermatitis nodularis necroticans, etc., begins as a tuberculous affection of the small arteries in the subcutaneous fat tissue, to which the bacilli have been carried by the general circulation from some tuberculous focus in the body.

A patient having exfoliative dermatitis with enlarged lymph nodes in the groin and elbow was shown me and at the same time it was pointed out that the disease bore a similarity to the case reported by Bruusgaard under the title of "Erythrodermia Exfoliativa Universalis Tuberculosa" (*Archiv f. Derm. u. Syph.*, Bd. 47, H. 2,

1903), in which tubercle bacilli were found in the skin sections. Lichen serofulosorum is quite commonly met with in lupus patients, and my attention was also called to the presence of dry scaling patches on the face which persist after the disappearance of lichen serofulosorum of the body and indicate the continued existence of tuberculosis.

In the treatment of lupus vulgaris and lupus erythematosus reliance is placed on local remedies to the exclusion of actinotherapy. Extensive cases of the former have been cured by the persistent use of ointments containing ten per cent. each of resorcin and pyrogallol and by plasters made after the following formula:

R	<i>Resorcin</i>	3
	<i>Lanolin Anhyd.</i>	
	<i>Emp. Plumbi āā</i>	10

For lupus of the mucous membranes good results have been obtained by applying this remedy several times a day:

R	<i>Resorcin</i>	20
	<i>Mucilag</i>	
	<i>Aqua āā</i>	10
	<i>Talc</i>	18
	<i>Balsam Peru</i>	2

I saw a well developed case of Darier's disease, keratosis vegetans, and had my attention directed to four other cases which had been under observation at the University Clinic and were reported by Boeck (*Archiv f. Derm. u. Syph.*, Vol. XXIII, 1891, page 857). Three of these cases were a father and two sons. Their subsequent histories were interesting, as one of the patients had died from cancer of the stomach and another from malignant disease of the throat.

At the Clinic there was also a unique case of dermatomyositis caused by rubbing copaiba into the skin through an error on the patient's part. A marked œdema and inflammation of the skin and underlying muscles took place and for a week after the last application the urine contained a large quantity of the drug.

In Christiania there is no direct supervision of prostitution, but syphilis is not as prevalent as it was five years ago when four individuals in a thousand were infected: now the percentage is about two per thousand, and the decrease is said to be due to the less prosperous condition of the people. Although prostitution is not regulated by law, an infected person must reveal the source of his disease,

and the law compels every one with a venereal disease to be treated either by his own physician or in a public hospital or dispensary. In this way the entire medical profession has constituted itself a defense against the spread of such diseases.

Professor Boeck's views on the treatment of syphilis interested me very much as he is one among the few remaining anti-mercurialists. His chief objection to the routine of mercury in syphilis is his belief that it poisons the delicately organized nerve cells, thus predisposing to paresis, tabes and other nerve lesions, in support of which he cites the fact that such affections are extremely rare in Norway. In the treatment of late syphilis his chief reliance is placed on the iodides and decoction of sarsaparilla. He is, perhaps, not so radically opposed to mercury as formerly, for now he occasionally gives it and strongly advises corrosive sublimate baths in hereditary syphilis.

There is no railroad communication between Christiania and Bergen, though one is in process of construction, so the traveller is compelled to go by steamer around the southerly end of the peninsula or overland by horse and wagon. The latter route is preferable as the road traverses charming scenery which in its variety is a constant delight. Bergen in its picturesque situation and history is more interesting than Christiania, but chiefly concerns the medical visitor as the home of Dr. Armauer Hansen, the discoverer of the bacillus lepræ, and because of its well-known Pleiestiftelse Hospital for lepers. Formerly the Lungegaards Hospital, a nearby building, was also used for such patients, but with the decrease in the disease in Norway this hospital is now used for tuberculous patients. The leper hospital is situated on the Kalfarvei, a street leading to the suburbs and lined with pleasant homes surrounded by gardens containing luxuriant vegetation. Dr. Hansen, who is the government inspector of leprosy for Norway, was absent from Bergen, but I was politely received by Dr. H. P. Lie, who is the medical director of the hospital. Visiting doctors are permitted to inspect the building and to make the daily round of the wards between the hours of eight and ten in the mornings. The wards and rooms are kept scrupulously clean and usually two or three patients only occupy one room. At the time of my visit there were about one hundred and sixty in the hospital, while in all Norway there are said to be three hundred and fifty. The number of infected individuals is rapidly diminishing, while tuberculosis is increasing. Segregation is not compulsory, if quarantine can be enforced at home, but the latter is imperfectly

carried out as the people are poor and the houses not adapted for isolating an infected person. The manner in which infection takes place is as puzzling here as in other leprous districts. In Dr. Lie's opinion it may occur through the mucous membrane of the mouth, nose or abrasions and wounds of the skin. The long incubation period of the disease and the absence of an initial lesion make it difficult or impossible to reach any satisfactory conclusions on these points. I saw a woman with extensive ulcerations whose husband and grown daughters, thirty years old, were free from manifestations of leprosy, although they had lived in close contact until recently. Such instances are not uncommon in the experience of those who have to do with this disease, but after all such negative evidence is not of much value in controverting the theory of the infectiousness of the malady.

Dr. Lie recently made a careful histological study of leprosy of the spinal cord and peripheral nerves (*Archiv f. Derm. u. Syph.*, Bd. LXXIII, Heft 1, 2 and 3, 1905), which showed that in the macular lesions of anæsthetic leprosy bacilli were first present in the finer skin nerves, from whence they invaded the larger nerve trunks and then rapidly disappeared from the cutaneous lesions. He did not deny the possibility of a secondary implication of the nerves of the skin, but an ascending neuritis was the usual course of the infection.

There were in the wards several cases which illustrated the long duration of the malady, among them a woman, blind and deformed, who had been an inmate since 1858. She had been afflicted since 1856 and was now seventy-four years old. For several years she was free from any manifestation of the disease and was considered a case of spontaneous cure as it was not so unusual for bacilli to disappear from the maculo-anæsthetic type and cure to take place: in the nodular form this seldom or never occurred. Numerous eye lesions and many cases of resulting blindness were seen in the hospital and the yellow discoloration of the conjunctiva which is so characteristic of early eye leprosy was brought to my notice. Perforation of the nasal septum with destruction of the wing of the nose, similar to the conditions produced by lupus, is often met with and serpigenous ulceration, not unlike the syphilitic form, is sometimes seen. As syphilis is rare in Norway outside of the large cities, mistakes in diagnosis are not apt to occur. An unusual case of cyanosis and œdema of one hand was called to my attention. Usually both members are affected in this manner along with hyperkeratosis of the palms and soles.

The hospital museum contains some excellent preparations showing the bone lesions of leprosy, among them adhesions of the tibia and fibula from an old periostitis, concentric atrophy of the phalanges and caries of the bones of the foot beneath an old perforating ulcer.

As regards the treatment of the disease, Dr. Lie had no special suggestion to make. Chaulmugra oil is not used and internal remedies only along general therapeutic lines. Locally ulcers and discharging lesions are dressed according to the usual surgical principles.

REPORT ON THE WORK ACCOMPLISHED BY THE FRENCH SOCIETY OF SOCIAL AND MORAL PRO- PHYLAXIS.

By E. L. KEYES, Jr., M.D., New York.

Mr. President and Gentlemen:

Your president has asked me to report to you in a few words to-night what I saw last summer in Paris of the French Society of Sanitary and Moral Prophylaxis.

Summer vacation was on when I reached Paris, so I had no opportunity of attending a meeting of the Society. But I talked with a number of the members, some lukewarm, some enthusiastic, and, after several conversations with Dr. Barthélemy, one of the founders and for several years the general secretary, and with Dr. Lévy-Bing, I was able to formulate, with the aid of the bulletin of the Society, some notion of the work it has accomplished.

The French Society of Sanitary and Moral Prophylaxis, the parent stem of which we are a branch, was founded under the leadership of Prof. Fournier in 1900, and has held regular bi-monthly meetings since March, 1901.

The Society numbers 877 active members, among whom are 43 women. The list is a catholic one, including princes and lesser nobles, ministers of state, senators and deputies, priests, ministers and rabbis, business and professional men and women, etc. My eye even fell upon a name after which was written "Medical Student." Evidently no one is considered unworthy who has the interest of the cause at heart. Imagine my surprise, too, in enumerating the first hundred names on the list to find that only 40 of them were medical men.

Such then is the Society. What has it accomplished? Permit

me to state its results in what struck me as the order of their importance.

In the first place, it has afforded a forum for frank and free discussion of all questions relating to venereal disease and sexual morality. Our plan of procedure is modeled after theirs. First, one or more papers are prepared on a given subject. These papers are submitted to a committee of inspection, and, if passed by them, read before the Society. But censorship stops here. After the reading of the paper, discussion follows fine and free. Everybody expresses his opinion, and, in the heat of argument, several opinions are often expressed at once.

"Should prostitution be controlled by the State?" "Should the medical secret be absolutely inviolable?" "Should sexual education to young persons be individual or collective?" The debate on questions such as these was not lacking in fire and spice.

Thus has been accomplished the first, great, fundamental work of the Society—the free airing and interchange of views on these subjects which have hitherto seen the light only in the silent plains of sociology or the tortuous passages of obscenity.

A second result, which has followed more slowly, has been the accumulation of scientific and practical data thus obtained and its publication in the bulletin of the Society, which thus becomes a veritable mine of information. In its pages will be found statistics of all sorts:—The frequency of venereal disease (estimated at between 1 in 7 and 1 in 10 for syphilis alone in Paris): The time of incidence: The history of the prostitute who, in France, falls at 16, becomes a professional at 17, and is infected with syphilis (and, needless to say, with gonorrhœa also) at or before 19: The prevalence of venereal disease in the army and navy: The proportion of still-births and infant mortality from syphilis (82 per cent. in cases that are not treated): These are only some of the important statistics herein collected, statistics, moreover, gathered from various sources and fortifying one another by contradiction as well as by agreement.

Then there are the pamphlets:—First and above all, "*Pour nos fils quand ils aurent 18 ans*," the document by Prof. Fournier which, translated in many languages and diffused the world over, has been hailed everywhere with enthusiasm: then the "*Ligue contre la syphilis*" and "*Danger social de la syphilis*" by the same author, appeals for the propaganda of the Society. Last among these pamphlets for general use is the one entitled, "*Pour nos filles quand leurs mères jureront ces conseils nécessaires*."

Of more special import are the circulars warning against the venereal peril for distribution in the army, the navy; the "Avis aux Futurs conjoints," which, after a stormy session, had to be revised; the placards for public urinals to warn the ignorant against the pretended cures of charlatans; the lists of magic-lantern slides for use in lectures. Then there are reports of the lectures themselves, lectures given to the 44th Regiment, to the 2d Battalion, lectures to sailors, lectures to the upper classes of schools, to religious and charitable societies, even to the public.

Of even more cheering import are the new regulations issued by the Minister of War commending medical instruction on venereal disease and careful inspection of the men in that regard. Also the circular of the Paris Prefect of Police calling attention to the immoral and indecent books and pictures exposed for sale in the streets of Paris and commanding the police to suppress this traffic: notice of the Mayor of Lyons forbidding so-called medical advertisements on the public urinals, etc.

Such is a part of the material stored up in these bulletins. Even this raw matter constitutes a store of fundamental information in sociology, itself ample to justify the existence of the Society. But there are many things besides, many facts I have not mentioned; but above all many points of view, a constant psychological flavor both of narration and of narrator that lends personality and distinction to many of the discourses.

Much of this psychology indeed is sad, many of the narrations bitter; such bitterness as that of the child who prostituted herself as a matter of blind duty, believing this the only means of obtaining bread for her mother and her little brothers and sisters; and such callousness as that of the thousands who voluntarily and with open eyes—if a girl of fifteen can be said to have open eyes—enter a life of prostitution as a chosen career and absolutely refuse from the very first to leave it.

Enough for the bulletin. This is the record of what is done within the Society. Now what change has it effected in the world about it? In material ways a fair amount has been accomplished. You have heard me mention the lectures and circulars for the army and navy, the instruction of the Minister of War in this regard, the police edicts against medical advertisements and immoral literature, the lectures to schools, to institutions, to the public. In detail much good must have been accomplished by all this work; many men and women must have been saved from sexual contamination, from venereal disease.

But there is another outward manifestation of the activity of the French Society of Sanitary and Moral Prophylaxis, which is to my mind the first full reward which it has reaped, and—if I may make bold to prophesy—which we may hope to reap from our efforts. The people have begun to discuss. The grown-ups, fathers and mothers, priests and clergymen, school-teachers and charitable workers, army and navy officers, statesmen and government officials, even the doctors—may the same awakening visit us—are opening eyes and mouth aghast at the cold, hard, demonstrable facts concerning the venereal plague; how it clings to the guilty, how it strikes the innocent, how old, unsuspected syphilis kills its myriads of innocent babes, how chronic gleet of the husband wrecks lives uncounted of innocent wives. Such is the first triumph of the Society. It is dispelling public ignorance.

Unfortunately for us we cannot command the great influences that the French Society has wielded. From the first they have had the press with them. Their meetings have been announced, their aims commented upon with a frankness which, if attempted here, would call down upon the paper publishing them anathemas, such as the familiar, column-long advertisements concerning errors of youth or manicure parlors never evoke.

Let me close my remarks, which have I fear been already too long, with some extracts from a criticism of "*Les Avariés*," a play by a certain M. Brioux comparable to Ibsen's *Ghosts*. In places this article expresses opinions I can not share; but it appeared in a Parisian daily, *Le Journal*, and its bold tone is the best possible commentary on the way in which these subjects can be handled in France.

"L'AUTRE DANGER."

"Do you know syphilis? Up to now the press, the novel and the theatre have ignored it. Authors have had the delicacy and the good taste to speak of free love as all perfume and flowers. They have misled you and their responsibility is a heavy one. Truth, more prosaic, bids me warn you that its results are too often full of woe. The frolics that commence in the brothel often end in the office of a physician.

"Hearken then!

"Of every seven adults you pass in the street, one is syphilitic, and of every three syphilitics one at least is contagious. That is, the chances of lighting upon a dangerous partner are one in 18—and there are some two millions of syphilitics in France.

“Learn, moreover, for your consolation, that foreigners have no cause to pity us: for the evil is worse in prudish Albion, in virtuous Germany and in holy Russia. Syphilis is world-wide.

“We may gather accurate figures from military statistics. In the French army there are 8 syphilitics per mille per annum; or, in the three years of service, 24 per mille. The proportion may seem low; but remember that the service occupies but three years of a man’s life and that each year the military syphilitics are spread broadcast and multiply.

“In the navy the figures reach 40 per mille; while a certain port, which shall be nameless, holds the record with 155 per mille (15.5 per cent); it is a true centre of import and export. Needless to detail the truly fantastic statistics of the colonial troops. Certain colonies are peculiarly productive, and all the world knows that Tahiti, Cythera of Oceanica, Loti’s love paradise, is also the paradise of *l’Avarie*.

“In Paris do not fancy that *l’Avarie* is confined to the lodgings of the outer boulevards and swarms only in the city moat. It has its entresols in the quartier de l’Europe, its very pretty appartements on the Champs-Élysées, and even its houses on the Parc Monceau. As Dr. Brioux has truly said: it shows no preference for the poor but is within the reach of any purse.

“How many a man exposes himself with fatal carelessness! In some quarters they laugh at it—until they are caught. Pity them, they are ignorant. Brioux’s play will instruct them. How many others were not even imprudent and yet have fallen innocent victims to the contagion! The innocent wife! infected by a thoughtless husband on his return from Cythera. Among every hundred women infected, Fournier estimates 19 innocent wives who have received syphilis as a husband’s gift.

“The innocent victims of duty! Midwives, accoucheurs, students, physicians!

“The innocent children, issue of infected parents, pursued by hereditary syphilis!

“The innocent thousands contaminated by accident, by the kiss of a father, by a glass, a towel, a razor, etc.!

“Every physician knows these terrible, pitiful cases:—the little girl whose ear the village jeweler pierces with a needle wet with saliva; the child that hurts her knee, which a charitable lady hastens to bind with a cloth moistened by her infected tongue; the baby whose uncle brings it a trumpet after depositing upon it a mouthful of avuncular

virus; and the young bride, no less innocent, kissed by all the wedding party and retaining on her cheek the memento of some anonymous syphilitic guest.

“ But let us be sane. Contagious cases such as those just cited are indeed rare. And the disease itself is not hopelessly bad. Every sinner receives some consolation from his physician, and the cure of syphilis is the triumph of medicine. The treatment is long but sure. Patience for himself, respect for others, and life may grow happy again for the syphilitic.

“ ‘The true remedy is a change in our habits,’ says Brieux. ‘We ought to stop treating syphilis as a mysterious disease whose name even should not be spoken. Ignorance of the true nature and consequences of this disease contributes to its ravages and its spread. We catch it because we didn’t know; we give it to others because we didn’t know! We *must* know and we *must* teach our children the responsibilities they assume and the evils they run the risk of during adolescence.’

“ Bravo, Doctor Brieux! Here is a man who knows what he is doing. He states the case in all seriousness. He shows the physical and moral miseries that supervene when the family is infected:—the wife defiled by a thoughtless and unscrupulous husband; the child sick and puny; rupture and hatred between man and wife; the family destroyed. He has shown each and all of us our responsibilities. He has traced the evil to its source—to the customs which are its culture medium. For this eminently social evil he shows the possible remedies:—By education and instruction; by intelligent sympathy; by legislation we may undertake the battle—and it is time we did.”

This is how they are attacking the evil in France.

THE TREATMENT OF CHANCROIDAL, HERPETIC AND
VARICOSE ULCERATIONS BY THE HIGH-FREQUENCY
SPARK. (Hyperstatic, Piffard.)

By GEORGE M. MACKEE, M.D., New York.

UNCOMPLICATED chancroid, even when properly treated, may last from one to three weeks, but if neglected or improperly treated, the ulcer may become inflamed, phagædenic or chronic.

It is in these chronic chancroids, having a very indefinite duration, sometimes lasting for months and resisting the most careful treatment, that the high-frequency spark seems most efficacious. I have applied this treatment to twelve such cases with uniformly good results. Several acute cases were also treated by the same method and although the result in each case was satisfactory, the credit can not be given entirely to this treatment, as the ulcers might have responded to other local measures.

With the varicose ulcer it is entirely different, as the primary cause is an interference with the circulation and a subsequent development of a soil favorable to an infection with the streptococcus: the first stage of ulceration resembling the primary vesicle of impetigo contagiosa (Leredde.)

The literature contains many reports of chronic ulcers having been treated by the high-frequency spark. Some of these ulcers were caused primarily by bacterial invasion, as in tubercular ulcerations, while others were caused primarily by impaired circulation, and complicated by bacterial invasion, as in varicose ulcers of the leg.

C. E. Coon, C. A. Wright, Alex Cæsare, Reus, Geyser, and others have reported satisfactory results in the treatment of ulcers by this method.

Freund in his book on radiotherapy claims to have obtained a distinctly good effect upon ulcers with this treatment, the earliest sign being a drying and cleansing of the ulcer base, but while acknowledging this improvement, he feels bound to state that up to the present time he has not succeeded in absolutely curing an ulcer of infective origin by this method.

Together with Schiff he treated a soft chancre in this way with the view of testing the parasitocidal action of spark discharges. He noticed a drying and cleansing of the ulcer base, but no tendency to heal quicker than usual, and after six sittings the treatment was abandoned in favor of the iodoform method. The age of the ulcer when the treatment began was not mentioned. Freund thinks possibly the morbid infiltration in these cases is too deep-seated for the spark discharge which loses its effect upon the surface.

The satisfactory results of other observers, as well as my own experience in treating various chronic ulcerations by this method, leads me to believe that the high-frequency spark is quite penetrating, perhaps not so much in its bactericidal as in its stimulating action, but this effect is not entirely lost upon the surface.

The beneficial action of the high-frequency spark upon ulcers may be ascribed to the fact that a large amount of ozone is generated, which with the presence of the violet and ultra-violet rays form a strong bactericidal combination, with certainly some degree of penetration. Added to this we have a severe electrical bombardment acting as a powerful stimulant. Theoretically at least, it would certainly seem to be an ideal method of treating ulcers whether primarily due to bacterial invasion, or impaired circulation.

Freund and his associates, by elaborate physiological experiments, have shown that high-frequency currents have no bactericidal effects which can be referred to induction, but only from the sparkings. These experiments have shown that spark discharges induce desiccation and heat effects, and by these means alone the development of bacteria may be hindered, but in all probability an electrolytic, and a mechanical action are to be ascribed to them. Coupled with the above is the action of the actinic light rays, the freely developed ozone, and the remote effects of the electrical waves themselves.

Zeit, as a result of similar investigations, found that when high-frequency currents were passed around a bacterial suspension, they have no bactericidal properties, but when the suspension is exposed to the spark or brush discharge from the same current ozone is produced, which kills the bacteria.

Ransome and Fullerton think that ozone disinfects by its power of oxidizing matter necessary to the life of bacteria, and not by directly killing the germs themselves, while Freund thinks it possible that the main action is as a powerfully penetrating irritant, having an action similar to chemical irritants only more penetrating.

In the treatment of the following cases the Piffard hyperstatic

transformer attached to a ten-plate static machine was used. A description of this transformer and its two high-frequency currents, and their relation to other high-frequency currents, was given by Piffard in an article in the *Medical Record* of October 31, 1903, and in the *Archives of the Roentgen Ray* of October, 1904.

CASE 1. M. H., twenty-two years of age, waiter by occupation, unmarried and presenting a history of several attacks of gonorrhœa and repeated attacks of herpes progenitalis.

On October 26, 1903, three days after sexual intercourse, he developed a group of herpetiform vesicles, situated in the sulcus one-half inch from the frenum, which soon ulcerated and uniting, developed a discharging ulcer about one-half inch in diameter, involving the frenum and glans. Several small ulcers developed on the glans and the mucous surface of the prepuce. Cleanliness was difficult in this case because of the excessive purulent discharge, and a somewhat redundant foreskin.

On December 23, after a thorough cleansing with distilled water, the lesions were sparked for five minutes every second day with the hyperstatic current from the positive terminal of the secondary coil, the negative terminal being grounded. By positive terminal is meant the terminal on the side of the hyperstatic machine corresponding with the positive pole of the static machine. A pointed carbon electrode was used. The immediate effect was an exudation of serum, the disappearance of the yellow tenacious discharge which had remained upon the floor of the ulcer even after cleansing, considerable increase of the induration, followed in twenty-four hours by a diminution of the inflammation, pain, discharge and induration. The small ulcers healed after the second treatment, the induration of the large one had disappeared, and its base was covered with healthy granulations. At the time of the fifth treatment the granulations were slightly elevated above the surrounding mucous surface, and the epithelium had advanced from the margins, leaving an uncovered surface of about one-fourth inch diameter. After the fifth treatment there was a considerable overgrowth of granulation tissue, which was reduced by applications of silver nitrate.

On January 10, seventeen days after the first application of the high-frequency spark, and as a result of five such treatments, the ulcer was entirely healed.

The treatment as given above was quite painful, but this objection can be overcome by not grounding the negative terminal, by using vacuum electrodes and by regulating the static spark-gap.

CASE 2. M. R., unmarried, twenty-two years of age, employed as a clerk, with a negative venereal history. Had coitus with a prostitute on December 22, 1903 (no previous sexual connection for several months) immediately after which he noticed a small abrasion which, in a few days, became inflamed and ulcerated.

The patient was referred to me by Dr. J. H. Thomas on December 29, presenting a discharging ulcer one-half inch in diameter, on the dorsum of penis in the sulcus, and covered by a rather long foreskin. The base and margin was considerably indurated, the induration being very hard and involving the prepuce and glans. A moderate degree of inguinal adenitis was present, the picture suggesting mixed infection. The patient was treated by the usual local applications until January 30, 1904, when he developed a small ulcer on the mucous surface of the prepuce, one-half inch from the frenum. The patient was kept under close observation for the appearance of secondary symptoms, which, however, failed to develop.

On February 6, I began using the hyperstatic spark for five minutes every second day, using a silvered glass electrode filled with carbon, and not grounding the negative pole. Improvement began immediately and was continuous. On February 17, the small ulcer had healed, and daily treatments were given the large one, until February 25, when the granulations, as in the preceding case, became exuberant and were reduced by silver nitrate, and the sparkings discontinued. On March 1, after thirteen hyperstatic treatments, covering a period of about three weeks, the ulcer was completely healed.

CASE 3. M. M., unmarried, an electrician, twenty-six years of age. I circumcised this patient in 1902 for the relief of frequent attacks of ulcerated herpes. On January 1, 1904, five days after sexual intercourse, he noticed a small round ulcer on the glans penis, which soon enlarged to the size of a ten-cent piece, with a sloughing base and undermined edges.

This ulcer persisted in spite of careful and thorough treatment until March 1, at which time hyperstatic treatments were begun and given every second day. Six treatments had been given and the ulcer nearly healed when the patient contracted diphtheria, the Klebs-Loeffler bacilli being demonstrated by Dr. L. B. Goldhorn. In three weeks the treatments were recommenced, the ulcer being in about the same condition as at first: complete healing resulted after five treatments.

CASE 4. M. K., unmarried, thirty years of age, employed as a

waiter. He contracted syphilis in the spring of 1901, and received treatment for three years. Has had several attacks of gonorrhœa.

In July, 1904, he developed a large ulcer on the end of a very long foreskin, which failed to respond to local treatment. He was then given a course of antisiphilitic treatment, also without benefit. Hyperstatic treatments were begun on September 17, and the ulcer was entirely healed by October 10, after fourteen applications.

CASE 5. M. C., a salesman, thirty-five years old, and with a history of repeated attacks of gonorrhœa. On October 12, 1904, one week before his first visit to me, and four days after coitus, he developed a small ulcer about one-eighth of an inch in diameter on the left lip of the meatus. The hyperstatic treatment was first applied on October 19, and continued for five minutes every second day for ten days, when he was discharged recovered. On January 22, 1905, he returned, presenting a very small meatus, resulting from cicatricial contraction, which was corrected by a meatotomy.

CASE 6. M. A., unmarried, salesman, twenty-five years of age, with a negative venereal history. This patient developed a small ulcer in the fossa on the left side of the frenum. After using *lotio nigra* for a few days without benefit he cauterized the ulcer with silver nitrate, directly after which it became inflamed and phagædenic in character. I first saw the case on March 13, 1905. The ulcer had extended under the prepuce, involving the corresponding fossa. There was a thin watery discharge, considerable pain and œdema of the surrounding tissues. Because of the severe inflammation, expectant treatment was given for two weeks, with but little improvement, except less inflammation and pain. The hyperstatic spark was then applied, and after six treatments the patient was discharged recovered.

The remaining chancroidal cases with but one exception, are so similar to the above histories, as to make them unworthy of record. The one exception was where two ulcers developed on the same individual at about the same time, one about the size of a twenty-five cent piece and the other very much smaller. The large ulcer healed after six treatments, while the small one persisted for two weeks longer.

One curious effect of this treatment in most of the chancroids, was the formation of exuberant granulations, which conditions was easily corrected by the applications of silver nitrate.

CASE 7. Mrs. C., married, forty years of age, came under observation April 4, 1903. The only point in her past history bearing upon her present condition was the development of varicose veins in both

legs at the time of the birth of her only child nearly eighteen years ago. These enlarged veins never caused any inconvenience until nearly thirteen years later when, after standing or walking, there would be considerable œdema of the ankles and feet. This condition grew steadily worse until about two years ago when extensive ulceration of both legs caused her to be confined to her room for three months, since which time she has had only the occasional use of her lower limbs which have never been entirely free from ulceration.

She was a very large woman, weighing probably two hundred and fifty pounds, and being well above the medium height. Her general condition was poor, being anæmic, and constipated. Her legs were swollen, inflamed and painful. On the outer aspect of the right leg, half-way between the ankle and the knee, was a large sloughing ulcer, seven inches long and four inches wide. The skin of both legs was dark, thick, shiny and hard, resembling leather. There were many deeply seated and some superficial cicatrices. Varicose veins could be seen above, but not below the knee.

The patient who was very much depressed and discouraged, was confined to bed for two weeks, given large doses of iron with laxatives, and kept on a plain light diet. The ulcer was at first treated with wet bichloride dressings and later by strapping, and the application of various antiseptic, astringent and stimulating mixtures. At the end of two weeks her general condition was much improved, the swelling and inflammation of the limbs was much less, but the ulcer showed very little tendency to heal, in fact a recent scar on the other leg showed signs of breaking down. A pair of strong elastic stockings were then ordered, and the patient was given office treatment.

The hyperstatic treatment was begun on April 27. A static spark gap of two inches and a silvered glass electrode filled with carbon was used and the negative terminal grounded. The sparking was not limited to the ulcer, but was applied to the entire surface of both limbs. When applied directly to the ulcer it was necessary, on account of pain, to reduce its strength slightly. While applying this treatment the patient held in each hand an electrode connected with the terminals of the hyperstatic primary coil, which caused the D'Arsonval current to circulate through the entire body. The patient was treated in this way three times weekly, the administration of iron was continued and the limbs used only when on the way to and from the office.

On May 15, the ulcer was entirely healed, there was no inflammation or pain, but still considerable œdema. The patient was then

instructed to use the limbs freely, always having them well supported by elastic stockings reaching well above the knees.

The treatments were continued until July 10, when an examination showed the limbs to be normal in size, free from œdema, but the skin was still somewhat dark and hard. The patient was then advised to return to her home in Kentucky, being instructed to continue wearing elastic stockings, and instruction as to exercise and general hygiene. In a recent letter, in answer to a request for information as to her present condition, she informs me that she still wears elastic stockings most of the time, that the limbs have given her very little trouble, that there has been no ulceration and that she is in good general health.

CASE 8. Miss H., thirty-five years of age, dressmaker by occupation. Developed varicose veins in her right leg five years ago, probably caused by the constant use of a sewing machine. In September, 1904, after having been troubled for some time with pain and œdema of the right leg, a small ulcer developed just above the ankle. This ulcer persisted in spite of local applications, rest and the use of elastic stockings, until February 15, 1905. The hyperstatic treatment was first applied on this date and continued every second day until twelve treatments had been given, when the ulcer was entirely healed. In a recent examination of the limb there was no œdema, and although the patient runs a sewing machine from three to six hours a day and has varicose veins of a moderate degree below the knees, and does not use elastic stockings, there does not seem to be any tendency to ulcerate.

CASE 9. M. J., widower, seventy years of age. Has suffered for years from large varicose veins, eczema and ulcerations of both legs below the knees. By the use of various local applications and the support of the veins by elastic stockings he has been able to enjoy a fair degree of comfort, until June, 1905, when a large ulcer, about four inches long and three inches wide, developed on the anterior aspect of the right leg just above the ankle. Hyperstatic treatments were given every second day beginning September 1. After ten treatments the granulations had attained their proper elevation, and the epithelium was stimulated by using a mild current through a vacuum electrode and a dressing of balsam of Peru and castor oil. The strong current was at the same time applied to the entire limb. On October 20, after eighteen treatments the ulcer and eczematous patches were entirely healed.

In addition to the above cases, I have treated seven cases of small varicose ulcers of recent development by this method with very

gratifying results. In the majority of cases the immediate effect of the treatment was a cleansing of the ulcer base, followed by a rapid growth of healthy granulations. The epithelial growth in most of the large ulcers has been rather slow, and in some cases the granulations, as in the chancroids, were exuberant.

Through the courtesy of Dr. E. Everett Rowell, I am able to report a very large varicose ulcer which had persisted over a year, treated by this method. This ulcer granulated as a result of twenty treatments, but the growth of epithelium was so slow that skin grafting was resorted to with very satisfactory results.

It would certainly seem that in the high-frequency spark we have a valuable addition to the treatment of chronic ulcerations. Most of the cases treated personally have been of long standing, and have been treated by the usual methods before having the high-frequency spark applied. It will be interesting to note the results of this treatment in acute ulcerations and in preventing the development of varicose ulcers.

SOCIETY TRANSACTIONS.

NEW YORK DERMATOLOGICAL SOCIETY,

336th Regular Meeting, October 24, 1905.

Dr. GEORGE H. FOX, President, in the Chair.

Epidermolysis Bullosa Hereditaria. A Case of. Presented by Dr. HOLDER.

Dr. Holder exhibited a patient from Randall's Island Hospital, who had been under the care of Dr. Winfield for some time at the King's County Hospital. Wherever any irritation was applied to the surface there would develop an eruption of large bullæ, this condition having existed since the child was one and a half or two years of age. The girl at the present time is about fourteen. She has never menstruated. There seemed to be no hereditary history. The eruption was more active on the shoulders, hips, hands and feet, and seemed to be of a hæmorrhagic character. The patient also has favus, although at the present time her head is in much better condition than it was. These bullæ are produced artificially by scratching. Arsenic was prescribed in this case, and under this treatment the patient improved for a time but then retrogressed to her former condition. She has at the present time the remains of a large bulla on the shoulder, although many larger bullæ have been observed.

There is a very large one at the present time on her ankle. The nails on the patient's toes have atrophied very markedly.

Dr. WINFIELD said that he had had the child under his care for twelve years. She was of Jewish parentage, and had two brothers and a sister who had never had a skin lesion. The child was admitted to King's County Hospital for blisters on her body. The treatment at first consisted of arsenic, under which the patient seemed to improve and at the age of five she left the hospital. Six months later she returned a great deal worse. About a year ago she was put upon Chaulmoogra oil, and the dose increased to one dram in milk of magnesia three times daily, under which procedure the lesion healed. Her stomach rebelled at large doses of this drug. These blisters would develop spontaneously and would occur in spots where the child had not rubbed or irritated the skin. They were sometimes observed on the soles of her feet and the palms of the hands, and were usually very tender. At the age of seven she was put in a ward with other Russian children who had favus, which she promptly contracted. Her condition of health was good until one and a half years ago when she seemed to be very much exhausted, but now looks better than when she left King's County Hospital.

Dr. DADE said he had had this case when on duty at Randall's Island last spring, and had then considered it a case of pemphigus and put her upon arsenic and baths under which she improved; when he left the service she was in good shape, was in the open air all day, and was gaining flesh. During his connection with the case he never saw the eruption appear on the palms of the hands or the soles of the feet. Fresh bullæ appeared from time to time over the body and limbs, but in no such profusion as when first entered at the hospital or as appears at present.

Dr. FORDYCE had a patient under observation at the present time whom he saw over two years ago, when she was one year old. She had vesicular lesions on the hands and palms, which was followed by papillomatous growths. She had now developed bullæ and he thought it looked like a case of epidermolysis bullosa. He excised some of the earlier lesions and found beneath the epidermis cysts containing horny matter.

Dr. BRONSON was interested to know what the rationale was of the action of Chaulmoogra oil in such a case as this. It was his impression that Unna attributed its action in leprosy to its reducing effect. Upon the same ground he thought that ichthyol, or inchthargan internally might be of service or perhaps resorcin.

Dr. SHERWELL thought it looked to him more like a case of chronic pemphigus than anything else.

Dr. ELLIOT thought that inasmuch as the bullæ occurred without pressure or irritation and on localities not subject to mechanical friction, that the case under discussion was more a pemphigus of hysterical or neurotic origin, than epidermolysis bullosa. In cases of the latter class which he had seen, bullæ arose within fifteen minutes after rubbing, and not twelve hours as has been stated in this case. The palms and soles were also free in the present patient.

Dr. ROBINSON saw a case in Toronto, but the eruption was confined to the hands and feet, and the bullæ appeared quickly after irritation. The present case seems very different.

Dr. JACKSON thought the case one of pemphigus rather than epidermolysis bullosa.

Dr. FOX wanted to know if either parent had had the disease, and, if not, the word hereditaria would be hardly proper in this case.

Dr. HOLDER, in closing the discussion, said that no one in the family had had the disease as far as could be ascertained. He said further, that the reaction of the skin was very slow to irritation, and that it requires from six to twelve hours for the bullæ to develop. Chaulmoogra oil would be tried again.

Prurigo of Hebra, A Case of.

Dr. Elliot presented a case of prurigo Hebræ from his department at Cornell. The patient, a girl eleven years old, was born in this city, of Russian parentage, and has one brother six years old, perfectly healthy. The disease began when patient was about one year old. The eruption was always about the same in appearance as it is now, affecting the forehead, face, trunk, arms and legs with all the glands more or less enlarged, especially in the groin, though this was much more marked four weeks ago when patient was first seen. At no time were the joint flexures of the elbows or knees affected. Her blood examination showed hæmaglobin, 60 per cent.; blood count, 4,672,000; white blood cells, 12,000; small polymorphonuclears, 50 per cent.; lymphocytes, 21.6 per cent.; large mononuclears, 8.2 per cent.; eosinophiles, 18.6 per cent.

Dr. JACKSON agreed in the diagnosis of prurigo. He believed that this disease was more common in this country than it was supposed to be. At the Vanderbilt Clinic there were always two or three cases of prurigo under observation. During 1904 there were eight cases.

Dr. ALLEN said that these cases are becoming more and more frequent, and that this fact shows that we cannot consider this country as a curative country any more. In the eighties they used to teach that coming to America was curative; but now children born in this country have it, so that climatic conditions do not seem to be as favorable as formerly. Patients are known to have done remarkably well here.

Dr. BRONSON thought the case a typical one. The complication with urticaria made it none the less typical. Urticaria was an accident liable to complicate almost any irritable pruritic disease; it was often seen in general eczema. The very fact that in these cases eczema was present in some cases, on the face for example, implied an especially irritable skin and one that would likewise easily become the subject of urticaria.

Dr. FOX said that cases of chronic urticaria did bear a close resemblance to prurigo. When these cases were shown about twenty years ago, it was claimed that prurigo did not exist in this country. Cases of prurigo mitis were hardly ever shown to the classes in Vienna. He also said that in cases of mild adenitis the adenitis that is observed is not the same as that seen in the severe type of the disease.

Dr. ELLIOT, in closing, said he thought the case a typical one of prurigo Hebræ, and that the lesions are so acute may be for the reason that this is the first time the patient has been under treatment after ten years duration. Not alone is the primary lesion characteristic, but the adenitis, the thickening and harshness of the skin and the broken hairs are observed. All of these are not found in urticaria cases. He does not think these cases so very rare, having seen them at Cornell and at the Skin and Cancer Hospital, an average of about two or three cases a year. He did not see any reason why prurigo should not exist in this country, and had never heard the statement that coming to America would cure the disease.

Naevus of the Face or So-called Adenoma Sebaceum With Well Marked Associated Lesions of Fibroma Molluscum. Presented by Dr. DADE.

The patient, a girl, was eight years old and had had the disease since shortly after birth. She was under par mentally as the most of these

cases are. The case he showed at one of the spring meetings of a like condition was in an idiot boy. Microscopical sections made from the earlier case, showed no involvement whatever of the sebaceous glands—a simple fibromatous condition being disclosed, hence he preferred to present this case under a heading of *nævus*, rather than the misleading longer title of *Adenoma Sebaceum*, under which these cases had heretofore been classed.

Dr. ALLEN asked what therapy had been employed, and whether the electric needle might not be effective in working in these *nævus* cases.

Dr. Fox said that he had used electrolysis that morning on a similar case simply to observe what effect it would have. With the electrolytic needle he had made a white path down the cheek. He thought it a tedious treatment. He knew of nothing clinically that presented such a strong and characteristic appearance as this *adenoma sebaceum*. The English dermatologists exhibit dozens of cases like the one under discussion. Some of them had epilepsy. He had a case now, a girl who has epilepsy. They are mentally stupid.

Rodent Ulcer of the Forehead Cured by X-ray.

Dr. Fordyce presented a patient with this affection, which had existed for fifteen years, and which had been subjected to various methods of treatment. When first seen, the ulceration was approximately one to one and a half inches in its long diameter. Before the use of the X-ray, the granulation tissue covering the ulcer was scraped away and this procedure was repeated several times during the course of the treatment. After nine applications of the X-ray, the ulcer healed completely, and although six months have elapsed since the last treatment, there is no evidence of a recurrence.

Dr. JACKSON said that the best way for a man to become convinced of the efficiency of the X-rays is to buy the apparatus and use it. For a long time he had been skeptical in regard to the X-rays, but for the past eight months he had employed them in what he considered suitable cases, with great satisfaction. He would instance but two cases of *epithelioma* in which the result was all that could be desired. In one of these there had not been the slightest return of the disease for six months. He had recently used the rays in a case of severe *acne indurata* with marked and prompt benefit. It was unfortunately a dangerous agent and one has to work in the constant fear of doing damage to the skin.

Dr. ALLEN spoke on the adverse side of the use of X-rays. Since the question of *acne* has arisen, he would say that he had been asked to see a lady whose back had been rayed for *acne*. Her back was now covered with *telangiectatic* spots worse than the *acne*. He thinks the injudicious or careless use of the X-ray should be warned against more than ever. He has not had any bad effects in two years, but he sees the bad effects of it and knows at least a dozen doctors who are maimed from its use. Sabouraud's radiometer is used by him and does good work, as it is an index of the amount of ray one can give with safety.

Dr. PIFFARD said that the X-ray will heal a great many lesions in a better way than anything else. In using the rays there is probably one man in twenty who takes the trouble to give his method or technique. He has his technique on a pretty nearly uniform basis and has accomplished with it more through radiography than clinical studies. This gives him a command of his tubes. He urges an evening set aside for a symposium on X-ray technique.

Dr. ROBINSON said that from a clinical standpoint if Dr. Jackson will use the rays a little longer he will have some bad results. He can get a mild burn with a medium tube. Some skins are very vulnerable. He had several cases in which pigmented spots formed on the face. He thought Dr. Fordyce's result most excellent.

Dr. Fox agreed with Dr. Allen. He personally had had no bad effects from the use of the rays. He had seen cases in which there was no improvement and others had been made worse by the use of the rays. He saw a case of psoriasis with telangiectatic spots from the use of the rays. In many cases it does good work, but most of these cases can be cured by the old methods of treatment, with less loss of time and less expense.

Dr. PIFFARD has seen cases treated in one of the hospitals with X-rays where no rays were given off. In another case the tube had a Friedlander shield on and the central rays were hitting three inches away from the epithelioma.

Dr. FORDYCE, in closing, said that he wished to emphasize the advantage of the use of the curette with the X-ray. And as far as reaction is concerned, better results usually follow a marked reaction.

A Case of Lupus Vulgaris of the Nose, Lip, and Palate, to Show the Result of X-ray Treatment. Presented by Dr. MEWBORN.

This patient was shown before the Society at the January meeting. He is nineteen years of age, and has had this affection for nine or ten years. At the time of presentation in January, there was an ulcerated patch just below the wing of the right nostril, about half an inch in diameter. The right wing of the nose was studded with lupic nodules. The septum nasi was perforated and the tubercular process involved the inner surfaces of the nostrils and septum. The left commissure of the mouth had a patch of lupic infiltration which easily broke down under the curette. The mucous membrane of the hard palate was involved to the extent shown in the plaster cast presented. The inner surface of the lip on the left side was also involved. Dr. Piffard having expressed a desire to try his ultra-violet lamp upon the case, the patient was given by Dr. Piffard exposures (of seven to ten minutes at a séance) on January 28, February 2, February 13, February 23, March 2, March 18, and April 1. Aside from a slight erythema following exposure, no beneficial effect beyond perhaps a slight drying up of the succulence in the patches. On May 6, patient was placed under the care of Dr. Geo. M. MacKee for X-ray treatment. Dr. MacKee has kindly furnished me with the following notes on the method of treatment:

"First treatment was given May 6, 1905, a ten-plate static machine was used with soft Gundlach tube for ten minutes, at a distance of twelve inches. The mouth, upper lip, lower half of nose, and inner quarter of cheeks were exposed. This treatment was given twice a week. On May 20, there was much less discharge, and the ulcer at the angle of the mouth and in the nose, showed a clean base and healthy granulations. June 17: First degree burn of lips, nose, inner part of cheek, and a conjunctivitis developed. Treatments were discontinued. June 27: The erythema disappeared, treatments were recommenced, one treatment was given every

seven days. July 18: Ulcer of month and lower end of nose were healed. Still some active lesions of the hard palate, gums, fauces, and upper part of nasal cavity were present. A high tube was used in ten minute séances, at eight inches, once a week, covering the same regions. The object being to secure deep penetration of the rays so as to obtain healing of the palate lesions. September 19: The fauces and gums and hard palate were healed. There was one active patch on the upper turbinate. This treatment was preceded by erythema lasting about two weeks, causing a postponement of treatments. October 3: Treatments were continued—high tube, five minutes, eight inches, every seven days." At present there are no lesions visible. The lip is normal in size and the site of lesions shows smooth scars. The palate is smooth and normal in color, but shows a slight depression to mark site of lesions.

Dr. PIFFARD said that the result in Dr. Mewborn's case was excellent. He had never heard of cases of leucoplakia treated with X-ray. Peculiarly, however, he had treated a case in that manner. The leucoplakia has cleared up, but there are still several distinct points of epithelioma, which he will excise.

Dr. ALLEN said that he had used the rays in leucoplakia with apparently brilliant results.

Dr. MEWBORN, in closing, said that while it had seemed necessary in the case presented to cause a burn, that the pain and violent inflammatory reaction of the face, had been terrifying to the patient, and had required great tact to induce him to continue treatment. The failure to obtain any benefit from the ultra-violet rays was probably on account of not having pushed the exposure to the extent of causing an inflammatory reaction.

A. D. MEWBORN, *Secretary*

THE PHILADELPHIA DERMATOLOGICAL SOCIETY

The regular monthly meeting was held Tuesday evening, October 17, 1905, in the amphitheater of Jefferson Medical College, Dr. M. B. Hartzell, chairman.

A Case of Epithelioma was presented by Dr. ARTHUR VAN HARLINGEN.

The patient was a woman thirty-eight years of age, and gave the history of having had the affection for a period of at least seventeen years. The disease had attacked the right lower eyelid and involved the adjacent skin below and the conjunctiva above. Ulceration and infiltration were marked. The treatment prior to the patient's consulting Dr. Van Harlingen had consisted largely in the application of caustics. An area about one and one-fourth inches square, just below the external canthus, presented the appearance such as is seen after a Thiersch skin-grafting operation, but the most careful inquiry failed to disclose any history of such an operation. The disfigurement and discomfort due to the entropion produced by the operation, had caused the patient to seek further advice, and she was presented for the purpose of obtaining the

views of the various members as to the advisability of employing the X-ray. The growth was of the flat variety and the ordinary surgical means did not seem to be suitable for its treatment. The members of the society were unanimous in the opinion that the X-ray should be given a fair trial since the eyeball offered rather great resistance to the ray, and would in all probability suffer no injury, while the effect on the epithelioma, no doubt, would be most gratifying.

A Case of Sarcoma of the Mucous Membrane of the Mouth was exhibited
by Dr. J. V. SHOEMAKER.

The patient was a man, forty-three years of age, and gave a history of having had the condition for a period of about twenty months. He had consulted several prominent surgeons of this and other cities, all of whom had advised excision. Inspection showed the presence of a rugous growth of the mucous membrane covering the hard palate, which growth seemed to be heaped up somewhat around the bases of the teeth. Microscopic examination of a section of the growth had been made under Dr. Shoemaker's direction, and showed the presence of a small cell sarcoma. Dr. Pfahler made a skiagraph which showed that the bone was involved by the growth. Dr. Shoemaker stated that the cases of this character within his observation had terminated fatally even when subjected to major surgical operations and consequently he had employed in this instance the X-ray for its therapeutic effect. When first seen, two weeks prior to this meeting, the patient was able to eat and speak only with the greatest difficulty. He had now had daily treatments for this period. A high vacuum tube was employed at a distance of fifteen inches from the outside, with the current intense enough to render the platinum red hot, each exposure lasting from six to eight minutes. This treatment had made a decided impression on the growth according to the statements of Dr. Shoemaker, Dr. Pfahler, and the patient.

Dr. STELWAGON in discussing the case, suggested the use of arsenic internally, in addition.

Dr. HARTZELL was of the opinion that any surgical operation would necessarily be futile, owing to the location and the diffuse character of the growth.

A Case of Ankylosis of the Jaw, Incident to an Operation for the Removal of a Malignant Growth, Treated by the X-ray
was shown by Dr. G. E. PFAHLER.

This case was exhibited on a number of occasions before in order that the society might watch the improvement from time to time. The benefit had been marked. The recurrences of the growth had been effaced to a great extent, and the patient had obtained considerable freedom of motion of the jaw by the treatment.

A Case of Epithelioma of the Mucous Membrane of the Mouth was also shown by Dr. G. E. PFAHLER.

The patient, a man sixty-five years of age, had been a brass tester by trade, and thought the affection was to be attributed to his work. The condition had existed for about four months and consisted of a whitish patch about one inch long and one-half inch wide, situated on the left side of the roof of the mouth. The patient gave a history of having had some very vague lesion on the left cheek thirty-five years previously. The X-ray had been employed for the mouth condition by Dr. Pfahler with decided improvement.

A Case of Tattoo Mark Effaced by a Chronic Eczema was brought before the society by Dr. S. H. BROWN.

The patient was a man seventy-five years of age, and when a boy had his initials tattooed on his right forearm, the marks of which had persisted until two years ago, when he developed a violent type of eczema which lasted, with remissions and exacerbations, until the present date. Within the last month the eczema had subsided materially and it was then discovered that the tattoo marks were to a large extent effaced, white lines resembling scar-tissue being left to mark the site of the former pigmentation. The possibility of this result being due to the local leukocytosis incident to the eczema was remarked by Dr. Hartzell.

Photographs of Exfoliation of the Skin Incident to Erythema Scarlatinoides was also shown by Dr. S. H. BROWN.

The patient, a man twenty-three years of age, had had three attacks of typical erythema scarlatinoides, in one of which the condition was mistaken for scarlatina, and he was accordingly quarantined. In each attack the fever had lasted about three days, after which desquamation of the entire body occurred. Casts of the hands and feet had been shed at the same time. The photograph which had been taken by Dr. Hartzell showed this condition very well.

A Case of Syphilis was shown by Dr. H. W. STELWAGON.

The patient was a colored woman, thirty-five years of age, and when first seen presented a crusted lesion on the chin which at first glance resembled somewhat impetigo contagiosa. After three weeks' treatment with a simple local application, the lesion underwent involution. At this date there was slight infiltration, pigmentation, and slight scarring.

A Case of Epithelioma of the Dorsal Surface of the Hand was also brought to the notice of the society by Dr. STELWAGON.

The patient was a man, sixty-six years of age, and a laborer by trade. The skin covering the region between the metacarpal bones of the thumb

and index finger, was the area involved. A vegetative lesion was also present at the left angle of the mouth. The X-ray was being employed with success.

A Case of Syphilis was exhibited by Dr. C. N. DAVIS.

The patient was a colored woman, thirty-seven years of age. In 1901 she was first seen and presented erythematous-squamous lesions, gyrate in form, on the cheek and upper lip. These disappeared under anti-syphilitic remedies. She returned within a few weeks, with a recurrence of the same kind of lesions in the same location.

Photographs illustrating a method of bringing out cutaneous pigmentation by sepia toning, were shown by Dr. M. B. Hartzell.

SAMUEL HORTON BROWN, M.D., Reporter.

REVIEW of DERMATOLOGY AND SYPHILIS

Under the Charge of JOHN T. BOWEN, M.D.

PATHOLOGY

By CHARLES J. WHITE, M.D., Boston.

A Contribution of the Study of Urticaria Pigmentosa. E. GRAHAM LITTLE. (*Brit. Jour. Dermat.*, October, 1905.)

Little has had the rather unusual opportunity of studying twelve cases of this somewhat uncommon disease within a short period of time. The cases investigated occurred in very young babies and exhibited the typical symptoms of the disease.

Histologically, nothing new was discovered, but it is interesting to note how closely the different examples followed the normal type, thus presenting one of the most constant pictures which the dermatopathologist meets.

The epidermis, as a whole, is markedly thinned, but over the underlying foci of mast cells, the upper layers of the skin are thrown up into rugæ. Edema is usually present, both extra and intra-cellular, thus producing the *altération cavitaire*. Pigment is of course a constant factor, but Little in several instances notes the paucity of the colored granules in apparently deeply pigmented macules. The pigment granules appear for the most part in the basal layer of the rete, but in several cases are found throughout the rete and in the papillary layer of the corium.

Kerato-hyalin is deficient or entirely wanting in a goodly proportion of the cases.

The corium presents also many constant anomalies. The vessels are usually dilated. Elastin and collagen are sacrificed to the invasion of the cells, being rarified, or thinned, or broken up, or even thrust entirely below or to one side of the conglomeration of mast cells. The presence of these mast cells forms the chief characteristic of urticaria pigmentosa and in this series of cases are moderate in amount, or very abundant. In the former instances they form a mantle about the upper or lower vessels or surround the sweat glands, or follicles. In the latter case they exist throughout the corium at the expense of the other structures. As a rule they appear normal and well formed, but in one or two cases they are somewhat broken, strewing the corium with granular debris.

Elastin and Elacin in the Epithelium in Gilchrist's Disease.—*Über den Einschluss von Elastin und Elacin in das Epithel und einen Elacinbefund bei der Gilchrist'schen Krankheit.* P. G. UNNA. (*Monatsh. f. Prakt. Dermat.*, 1 August, 1905, p. 77.)

Von Hansemann, in 1893, was the first to note the inclusion of elastic fibres amongst epitheliomatous cells. Six years later, Ramon-y-Cajal recorded the presence of elacin in the stroma of carcinoma and soon afterwards Zieler raised the question as to whether elacin was included in the epithelial growth as elacin, or whether it developed from previously enclosed elastin. Zieler and Unna both decided that elacin, when present, was incorporated as elacin. Both these substances play a passive rôle in reaching their abnormal position as the invading epithelial cells creep about their fibres and eventually surround them.

Another phenomenon noted was that elastin was never destroyed by the epithelial cells, but suddenly disappeared when invaded by plasma cells. And still another metamorphosis was described wherein collagen succumbed to the invasion of the epithelial growth. Such were the well-known facts connected with epithelioma.

When Unna began to investigate blastomycosis, another epithelial hypertrophy, he soon discovered that still more interesting changes were produced in the elastic tissue. He noted a remarkable degeneration of elastin which occurred after its incorporation in the proliferated epithelium. In this disease the growing epithelial structures pushed aside the collagen, but surrounded the elastin as in skin cancers, but a still further reaction took place in blastomycosis whereby the epithelial masses often broke down. Such softenings occur in cancer, however, but in blastomycosis are more frequent and more superficial. Within such degenerating masses Unna found in blastomycosis that the elastic fibres underwent changes which have not as yet been observed in carcinoma. In such cases most of the elastin became elacin, which appeared as fibres two or three

times larger than normal, and furthermore developed protuberances at their tips, which suggested highly vegetating mycelium. Sprouts appeared at right angles to the axis of the fibres, while the terminal filaments resembled spindles.

These phenomena lately studied and described by Unna, led him to suggest that they might perhaps account for the hyphomycetes which have been observed by several writers in cases of blastomycosis.

Nerve Ending in the Epidermis, the Discovery of a New.—*Über einen histologischen Befund in der Haut (anscheinend ein neuer epidermoidaler Nerv?)* Professor I. F. SELENEW. (*Monatsh. f. Prakt. Dermat.*, 15 May, 1905, p. 537.)

While studying a section of epidermis from the back of the hand in a case of pemphigus foliaceus, Selenew discovered an unusual structure which he himself had never before observed and which he is inclined to regard as unique. This strange body lay in the uppermost layers of the rete, separated from the surrounding elements by a capsule of endothelium. The ball-shaped body was composed of nucleated epithelial cells, onion-like in structure, while attached to it was a tail-shaped appendage formed of homogeneous laced cells with a few nuclei which grew downward, and was lost in the rete cells just above a minute dermal papilla. The upper end of this appendage expanded in the middle of the ball and was lost sight of as a few homogeneous strands.

This extraordinary body received the van Gieson stain rather faintly, except at its point of origin within the ball, where its elements were colored more deeply than the adjacent normal rete cells.

Selenew considered three possibilities in the interpretation of this phenomenon—a protozoon, an epidermal nerve and a rudimentary hair or gland. He rejected the last hypothesis because the elements were too well defined to consider them in such a light. The idea of a protozoon was also excluded because no such observation had ever been made and because the structure of the body in question was unlike any protozoon yet described. Selenew was therefore inclined to regard this "find" as a nerve akin to the Krause bodies of the skin.

Epithelial Fibers, a New and Simple Method of Demonstrating—*Über eine neue und einfache Methode zur Demonstration der Epithelfasern in der Haut.* A. PASANI. (*Monatsh. f. Prakt. Dermat.*, 1 May, 1905, p. 492.)

Pasani states that up to the present time, all methods for the demonstration of the epithelial fibers are open to the double objection of complexity and of uncertainty. (But certainly the writer cannot claim that his new method has obviated the first difficulty! Ref.) Pasani's deductions rest upon the principal of acidifying the epidermis whereby selective

affinity for later coloring reagents is produced in certain of its elements. After much experimentation, he found that phosphowolframic acid effected a subsequent deeper absorption of eosin, the agent which must be considered the best yet found for the demonstration of the "Epithelfasern."

Material should be hardened in alcohol, imbedded in celloidin, cut not thicker than 10 μ . and stained as follows:

1. Ten minutes in 20 per cent. aqueous solution of phosphowolframic acid.
2. Wash in distilled water.
3. Fifteen—twenty minutes in: 10 drops waterblue-orcein mixture + 12 drops 20 per cent. alcohol eosin B. A. (Grübler) + 1 drop saturated aqueous acid fuchsin + 5 drops neutral glycerin. (The waterblue-orcein mixture is made as follows: Waterblue 1, orcein 1, acetic acid 5, glycerin 20, alcohol 50, distilled water 25.)
4. Wash in distilled water.
5. Absolute alcohol.
6. Repeated dippings for a few seconds in phosphowolframic acid.
7. Absolute alcohol, xylol, Canada balsam.

This method will reveal the epithelial fibres in normal epidermis, but to a greater extent in cases of condyloma acuminatum, epithelioma and cornu cutaneum. The epithelial fibres are stained dark red; protoplasm of spinous cells, a beautiful blue; keratohyalin, red; basal horn cells, dark red; upper horn cells, yellow red; nuclei of corium, brilliant red; and all other elements of the derma. homogeneous blue. The specimen should be examined under an intense artificial illumination.

Atrophy of the Subcutaneous Fat, A Contribution to the Study of the Inflammatory.—*Zur Kenntniss der entzündlichen Atrophie des subkutanen Fettgewebes.* KARL LÖWY. (*Archiv f. Derm. u. Syph.*

This article is a critical résumé of the work of other writers on the subject of the disappearance of subcutaneous fat cells after various inflammations, but especially after the injection of a sulphur-bearing oil

of iodine described by Suzuki. (*Archiv f. Derm. u. Syph.*, Vol. 75, p. 335).

In his conclusions Löwy disagrees with some of Suzuki's conceptions and states:

1. That the injection of this sulphur-bearing iodine oil did produce the typical inflammatory atrophy of fat.
2. That the great hollow spaces in the fat layer seen after the introduction of the oil were not produced by the mechanical action of the foreign substance, but were due to the consequent atrophy of the fat cells.
3. That the inflammatory cells observed around the fat drops were

not leucocytes and fragments of fixed tissue cells, but were the product of fat cells from endogenous proliferation, while the numerous giant cells noted were evolved by the same process, and

4. That the central necrosis found in the adjacent proliferative foci were not to be interpreted necessarily as due to the direct harmful effect of the oil since similar degenerations were to be found in the fat atrophies of other diseases, notably erythema induratum.

INFLAMMATIONS

By H. P. TOWLE, M.D., Boston.

Chronic Eczema as a Complication of Senile Degeneration. LEALE. (*Am. Med.*, 1905, IX, p. 616).

Leale begins with the statement that eczema is frequent in the aged, especially in those with senile degeneration, and is usually of the erythematous type. By senile degeneration he means changes in the circulatory system, arterio-sclerosis, atheroma, enlarged and often dilated heart. While there are other predisposing causes to be taken into account, such as gout, diabetes, etc., they play but a minor part in the cases of senile eczema. Objectively the symptoms are those of an ordinary eczema erythematosum. Subjectively, sleeplessness is a marked and constant symptom which usually requires a hypnotic. Such cases are resistant to treatment but in the majority of them, he states, a more or less permanent cure can be obtained by a rational line of treatment. Leale regulates the mode of life, the habits, diet, etc., and after a careful physical examination prescribes appropriate treatment for any disease found. He lays especial stress upon the proper maintainance of the circulation and the moderate reduction of high tension. The force, frequency and rhythm of the heart must be watched as well as the amount and character of the urine. Water should be given frequently but in small amounts at a time. Locally the treatment should be stimulating to improve the peripheral circulation. For this he employs massage, using for lubrication olive oil with a small amount of zinc oxide mixed in. In giving the massage, use the palms in a combination of effleurage and massage à friction, following as nearly as possible the course of the veins and lymphatics and taking twenty to forty minutes for the treatment. This should be repeated once daily, preferably before retiring in order to insure a good night's sleep. Over infiltrated areas he uses Pick's treatment—painting on three coats, one over the other, of Tr. Pix Liquida 20, Alcohol 40, allowing each coat to dry before painting on the next. Over this is then spread a thin layer of Ung. Zinci Ox. with several thicknesses of thin gauze. Every second night a bath is given at ninety degrees, using olive oil soap and drying carefully without friction. By these methods he says a cure is obtained in from two to eight weeks.

Erythema Induratum, A Further Contribution to our Knowledge of.WHITFIELD. (*Brit. Jour. Derm.*, July, 1905.)

In 1901, in the light of two cases of his own, and from the classification of the published cases of others, Whitfield came to the conclusion that there were two types of erythema induratum, the one tubercular, the other non-tubercular. The latter occurred usually, although not invariably in older patients than the former, ran a more rapid course, showed less tendency to ulcerate and caused more pain. He has recently had another case of this non-tubercular type which he now reports. The case was that of a Polish Jewess, aged thirty-nine, married, who has had four children. No miscarriages. There was no history of tuberculosis in the family. Some of the children had had enlarged tonsils and rickets. The patient had typhoid thirty years ago. Rheumatism nine years ago, since which time she had never been quite well but suffered from pain and aching in the limbs and from headache. She also complained of her heart and of an almost continuous pain in her chest. She had had lumps in her legs for a year. Three weeks ago these became much more numerous and similar lumps broke out on the arms and slightly on the ears.

Upon examination there were found numerous nodules on the posterior aspects of the calves, more below the middle than above, varying in size from a small dried pea to a good sized hazel-nut. The smaller ones could only be detected by touch. The larger ones involved the skin which showed a faint cyanotic discoloration. There were no ulcerations. The nodules, although adherent to the skin, were free from the subjacent fascia. Tenderness was present. On the arms there were many nodules, none larger than a pea and without visible discoloration of the skin except over one nodule on the back of the hand. They were almost entirely on the extensor surfaces, adherent to the skin and movable on the deep fascia. The ears showed no real nodules but were rather cyanotic on the edges. There were no signs of tuberculosis in the other organs. The heart was excitable but there were no signs of organic disease. The patient was extremely neurotic. She was admitted to the hospital and a nodule was excised from the leg. There was no reaction, local or general, to .005 c.c. of original tuberculin. While in the hospital, the patient had an attack of hystero-epilepsy and complained continually of pain and flatulency after food. The nodules subsided fairly quickly and did not return, at all events not for some months when she was lost to sight.

The excised nodule was hardened and the sections stained by various methods for histological examination. In none of the sections was any form of organism found. The nodule was almost entirely surrounded by fat, only a few strands of fibrous tissue running up apparently to connect it with the skin above. In the nodule itself were two forms of tissue, well established cicatricial fibrous tissue and newly-forming infiltrating tissue which spread into the surrounding fat. In this infiltrating tissue were

what, at first sight, appeared to be numerous thin-walled vessels with unusual proliferation of the endothelium, but which were found to be localized cellular proliferations surrounded by a fine layer of fibrous tissue. Where the inflammatory process spread at the edge the fat cells swelled up and filled out so that they resembled ordinary endothelial cells. Some lobules were packed with large proliferating cells which could easily be traced to the original fat cells as their point of origin. In some of these circumscribed collections, large giant cells were formed, but the appearances even then were not quite like those of tuberculosis. The vessels showed only the usual infiltration and perivascular changes. From the appearance and position of this proliferated cell change Whitfield concludes that it would appear that its termination is either in absorption or in organization into ordinary cicatricial fibrous tissue. From the clinical history it is evident that even the fairly well formed fibrous tissue was capable of complete absorption as the nodules disappeared without leaving any permanent trace behind. In the absence of any definite knowledge of the etiology of the disease he says that it is impossible to attribute any relationship to the marked hysteria and the symptoms referable to the heart. He places this case with Stockmans' who in a paper on chronic rheumatism, called attention to the fact that rheumatic nodules are sometimes seen in the subcutaneous tissues apart from the fascia and tendons, and that many cases show well marked dyspepsia and functional nervous symptoms.

Whitfield also speaks of the case of a young girl, previously reported, who had repeated attacks of erythema induratum from which she recovered only by rest in bed and slowly. Search for the tubercle bacilli was negative. During the four years the nodes had always ulcerated. Reaction to tuberculin was marked. He is now treating her by Wright's method of testing the opsonic index of the blood. Between January 16, 1904, and February 27, 1904, she was given three doses of tuberculin R graded according to the opsonic index. On February 27, it was noted that the scars were all soft, pale and healthy, except one, which had a blue, hemp seed sized area in its center. The nodules had entirely disappeared to the touch. The leg was healthier than it had been for four years and the girl herself felt extraordinarily well. She had been on her legs all the time since the tuberculin treatment was started.

Erythema Induratum. HIRSCH. (*Archiv f. Derm. u. Syph.*, LXXV, 57:181.)

Hirsch reports the case of a girl of sixteen. There was no tuberculosis in the family. Patient was well until seven when she had an eruption on the body and upper part of the extremities, which came out in crops and lasted for one year. At eleven, she had serofuloderma of neck

and axilla, which necessitated several operations. The duration of present eruption is uncertain.

Examination showed on the left eye, partly on the bulb and partly on the cornea, several nodules, some slightly ulcerated. On both lower legs, before and behind and on lower and middle thirds, several livid red nodes varying in size up to larger than a thaler. They were in the skin itself and in several places projected slightly and were not sharply defined from the sound skin. Several nodes showed central softening with either fluctuating cold-abscess-like tumors or else ulcers with undermined edges. These nodes were not painful. There were no varices nor œdema of the legs. There was no fever present. Neither tuberculin nor animal inoculation were used for diagnosis.

One of the nodes with central softening was excised from the right lower leg for histological examination. This showed a comparatively fresh infiltration into the cutis and subcutis, which extended in slight degree up to the epithelium, and which was most marked along the course of the vessels. This infiltration consisted largely of mononuclear leucocytes, with numerous mast cells and comparatively numerous newly formed vessels. There were some epithelioid cells and a few broken giant cells, but nowhere were there typical tubercles with necrosis. Further there were no especially changed or thrombosed vessels. The connective tissue was generally well preserved. There was found only a small amount of new formed connective tissue and this was without especial arrangement. Only traces of the elastic tissue were left in the infiltrate although elsewhere it was well preserved. Hirsch concludes that the process was primary in the cutis and also that it was due to some virus. Although he is not justified by the histological findings in calling the process tubercular, he still considers his diagnosis correct, especially as many of the clinical facts appear to point to a connection between the disease and tuberculosis.

Hirsch also reports briefly six cases of erythema induratum without histological examination. All of the cases occurred in women, all of whom showed other forms of tuberculosis and many of whom had tubercular family histories. Following these reports, he reviews the literature of the disease at length. Out of sixty-one cases gathered together in this way, he found only eleven cases in males. The age limits of these reported cases varied from twelve to sixty-eight, thirty-six being under thirty. In twelve, there was tubercular family history, while in thirty there was present at the same time tuberculosis, scrofuloderma or a tuberculide. In the greater number, the eruption was on the lower legs; in a number on the lower legs, thighs and arms; in five, on the face, and in three of these on the arms also. In twenty it was expressly stated that there was no ulceration, while in eighteen there was more or less pronounced ulceration of one or more nodules. From here he passes in review the histological findings as reported by the various men and concludes that on no one

spite of the insufficient data, yet in view of the frequent coincidence of the disease in his cases with other true forms of tuberculosis, he suspects that erythema induratum has to do with a tubercular and indeed a bacillary process even if he was unsuccessful in his search for tubercle bacilli.

Herpes Zoster, The Age Incidence of. EVANS. (*Brit. Jour. Derm.*, 1905, p. 199.)

Dr. Evans begins by saying that as shown by the various text books there is a wide diversity of opinion as to the age at which herpes zoster is most frequently met with. As the disease is very readily recognized, this difference of opinion must be explained on other grounds than that of mistaken diagnosis. It was to determine if possible these other grounds that his investigations were made. To show that a diversity of opinion really exists he quotes from several authors beginning with Bateman, who said that the disease was most frequent from twelve to twenty-five. According to Rayer, adults are more often affected than children or elderly persons, while Hardy says that it occurs at all ages, about equally, except in infancy, when it is rare. Crocker states that about three-fourths of his cases were under twenty and two-thirds of these were under thirteen; the rest were nearly all over forty. Head found that out of 378 cases, 283 were under twenty-five, 66 between twenty-five and fifty, 29 over fifty. The maximum incidence he gives as between twelve and thirteen. In Evans' own cases one-half were under fourteen and one-sixth over forty. Thus, he says, there are two periods when zoster is most likely to occur, under thirteen and over forty. In his endeavors to explain the diversity of opinions, Evans discusses several possible causes of error, such as conclusions based on too small a series of cases; locality, the disease being more prevalent in some countries than in others; epidemics, which are almost confined to children, and, finally, its multiple origin. Evans thinks that there is much to support the view that the disease is microbic, particularly the occurrence of epidemics and its seasonal prevalence. Such cases, he says, form the majority. The rest are due to such varied causes as arsenic, trauma and tubercular meningitis. With some hesitation he assigns the cause of the disease in children to a microbic origin while the cases occurring in persons over forty are of unknown exact origin. He bases his conclusions on the rarity of pain in children and its presence in the cases over forty, when it often bears no relation to the severity of the disease. This difference in pain in the two groups suggests, he considers, an etiological difference. Finally, he concludes, we have grouped under the name herpes zoster several diseases, distinct in etiology and course.

Infantile Eczema, An Inquiry into the Etiology of. HALL. (*Brit. Jour. Derm.*, July, 1905.)

After analyzing his cases, Hall sums up as follows: There were more males than females. More were born in middle or late maturity. On the

whole the cases were not of very large families. The first born were not more often affected than the later born—about one-half were either second or third born. A very small percentage of the mothers had had an actual outbreak of eczema. In only a very few cases was any other child of the same family similarly affected in infancy. Most of the cases began between the end of the first and the beginning of the fifth month of life. In 95 per cent. the rash appeared first on some part of the head. Of 59 cases 3 appeared in the quarter June-August (the warmest quarter), 24 in the quarter December-February (the coldest), 18 between September-November and 14 February-June. Eight hundred and sixty-one—22 per cent. were breast fed when the rash appeared, the rest were bottle fed. The majority had not been vaccinated before the rash appeared and in the others the interval between vaccination and the appearance of the rash varied considerably in the different cases.

Lichen Plano-Pilaris (Spinulosus). PRINGLE. (*Brit. Jour. Derm.*, July, 1905.)

Dr. Pringle reported a case before the Dermatological Society of London, June 14, 1905, as follows: Girl, fourteen. Duration of disease, two years. On the back of the neck was a roughly circular patch of conglomerate lichen, showing much atrophy. Surrounding it were numerous acuminate follicular lesions. The chief manifestations were, however, on the inner sides of both knees and consisted of large, deeply infiltrated purple plaques, each the size of the palm. The edges were composed of prominent, shiny, acuminate papules, which extended two or three inches around the plaques in every direction, becoming more and more discrete and less prominent as they spread down the legs; but every follicle as far down as the ankles exhibited some degree of keratosis.

Urticaria Pigmentosa. SWOBODA. (*Wien. Med. Wchnschr.*, 1905, LV.)

Swoboda reports a case in a child of two and one-half, who had been under observation since its third month. The first eruption had appeared without any general disturbance, and, according to the mother's account, resembled flea-bites, raised white lesions surrounded by a red ring, *i. e.*, ordinary urticaria. The redness disappeared in a few days, leaving a brown stain which later grew darker. Up to the third month the eruption continued to come out in crops, but since that time there have been no more. At the third month, the appearances were like those seen to-day, thickly strewn over the whole body numerous mustard seed to kreuzer sized pigment spots which, in some places, were confluent. The body and legs were most affected, the face, palms and backs of the hands the least. The efflorescence was of a chocolate brown color, leaving a yellow-brown stain on pressure. The lesions were chiefly in the skin, many of them being somewhat elevated, of a velvety feel, with a smooth surface over which the wrinkling of the skin was preserved and occasionally one scaled slightly. During the earlier period of the disease, it often hap-

pened that on one day large red areas and pigment spots would be found transformed into typical urticarial wheals, while on another day not a trace of anything even suggesting urticaria could be found. At such times it was noticeable that cutis anserina was very easily provoked. This irritability of the skin has been diminishing gradually. Whereas two years ago mechanical irritation of the skin caused prominent urticarial wheals to develop on the pigment spots, it now requires energetic rubbing to produce a wheal, and even then it is better felt than seen. Histologically, Swoboda found a marked pigmentation of the Malpighian layer, pigment collections in the cutis and also a characteristic heaping of Ehrlich mast cells in the cutis.

The Haemorrhagic Erythemata of Childhood, A Contribution to the Knowledge of. LANGSTEIN. (*Jahr. F. Kinderh.*, LXI, 1905.)

Langstein reports the case of a child who, when three, had a short attack of colic which was not repeated, and an inflammation of the neck in 1903. The present illness began May 23, 1903. According to the history, while out walking she showed her mother a red spot on her foot which disappeared on pressure. Upon her return home, the foot and lower leg were swollen and covered with red spots which by the next day had grown to the size of the palm and had spread over the entire body. The darkest and largest areas were on the genitals. At the same time the movements were streaked with blood and of bad odor. This eruption disappeared in three weeks, passing through all the colors of the rainbow. Fourteen days later her head began to swell and spots similar to those of the first attack came out over the entire body and while the old ones disappeared, new ones came out in other places. Associated with the eruption were attacks of dyspnoea which became so severe that the child was taken to the hospital. Here she remained ten weeks, during which time she had three relapses. At the end of January a fresh eruption appeared with dyspnoea, palpitation, bloody discharges and bloody sputum. Improvement followed dietetic treatment. Nine weeks later there was still another attack also followed by improvement. Still later she was brought to the polyclinic for another attack. Examination showed that the lungs were negative, the heart dilated to the right, tone clear, action regular. The stools were bloody and there was a trace of albumen in the urine, but no casts. The indican reaction was extraordinarily strong. She had frequent colic with bloody diarrhoea and marked cough at night, with attacks of dyspnoea. There was no fever. The pulse was 132. In the further course of the disease there were new swellings and spots and also attacks of dyspnoea with stridor which disappeared quickly. Clinically the case seemed to be a mixture of the two forms which Hennoeh separated from purpura hemorrhagica, but differed in that there was also oedema of the glottis and hæmorrhage into the back of the eye. Langstein thought that the cause was probably autointoxication rather than an infection.

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